Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.
- If you encounter an accession number from an older search run against UniProt (results file extension .rup) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein. Archive database (UniPARC) at:

http://www.pir.uniprot.org/database/archive.shtml

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

Pending Nucleic Acid and Pending Amino Acid database searches generate two sets of results each. The Pending databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Searches run against the Nucleic Acid Pending database produce two sets of results, with the extensions .rnpm and .rnpn

Searches run against the Amino Acid Pending database produce two sets of results, with the extensions .rapm and .rapn

Because they contain data that is confidential, the results of Pending database searches should not be left in the case.

```
Sequence 2726, Application US/09187859A
; Sequence 2726, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION,
APPLICANT: Blaschuk, Orest W.
; APPLICANT: Blaschuk, Orest W.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: 100086.407C1
; CURRENT APPLICATION NUMBER: US/09/187,859A
; CURRENT PELLIA GAST: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2726
; LENGTH: 9
; TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CIAFATTPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
US-09-187-859-2726
                                                                                                                                                                                                                                                                                                                                                                                          US-09-535-852-1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMAT
US-09-535-852-1681
LENGTH:
원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1681, Ap Sequence 2726, Ap Sequence 17, Appl Sequence 18, Appl Sequence 147, Appl Sequence 150, App Sequence 150, App Sequence 147, App Sequence 148, App Sequence 150, App Sequence 373, App Sequence 373, App Sequence 373, App Sequence 69, Appl Sequence 69, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                         April 1, 2005, 11:13:06 ; Search time 17 Seconds (without alignments) 39.520 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
             GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-535-852-1681

US-09-187-859-2726

US-09-368-6702-1726

US-08-261-206A-18

US-08-189-331-149

US-08-189-331-149

US-08-189-331-149

US-08-189-331-149

US-08-189-331-149

US-08-189-331-149

US-08-13-760-9

US-08-471-068-149

US-08-471-068-149

US-08-471-068-150

US-08-471-068-150

US-08-471-068-150

US-09-127-43

US-09-128-754-373

US-09-128-754-373

US-09-128-754-373

US-09-128-758-373

US-09-128-758-373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -09-357-952-116
-09-521-650-68
                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                         513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                              - protein search, using sw model
                                                                                                                                                                                                                                                           Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued_Patents_AA:*
                                                                                                                                                                         US-09-761-636A-14
52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                        1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length
                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0 Maximum DB seq length: 9
                                                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                              OM protein
                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                            Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

```
ö
                                                                                                                                                                                                         115, App
1, Appli
8, Appli
9, Appli
11, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sednence
                                                 Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                             Sequence
                                                                                                                                                                                           Sequence
                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                           Sequence
                                  Sequence
                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1681, Application US/09535852

Sequence 1681, Application US/09535852

Batent No. 6638911

GENERAL INFORMATION:

APPLICANT: Blanchuk, Orest W.

APPLICANT: Bymonds, James M.

APPLICANT: Gour, Barbara J.

TITLE OF INVENTION: COMPOUNDS AND EWIHODS FOR MODULATING

TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS

FILE REFERENCE: 100086.407C6

CURRENT APPLICATION NUMBER: US/09/535,852

CURRENT FILING DATE: 2001.05-21

NUMBER OF SEQ. ID NOS: 2009

SOFTWARE: PastSEQ for Windows Version 4.0

SEQ ID NO 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Cyclicized modulating agent comprising OTHER INFORMATION: desmocollin-2 cell adhesion recognition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 44.4%; Pred. No. 4:18+05;
4; Conservative 1; Mismatches 4; Indels
US-09-521-650-116
US-09-168-888-68
US-09-916-888-116
US-09-947-387-68
US-09-357-952-67
US-09-357-952-67
US-09-357-952-115
US-09-168-888-67
US-09-168-888-67
US-09-168-888-115
US-09-168-888-15
US-09-168-888-115
US-09-168-888-115
US-09-168-888-115
US-09-168-888-115
US-09-168-888-115
US-09-168-888-115
US-09-168-888-115
US-09-368-670C-1
US-09-368-670C-1
US-09-368-670C-9
US-09-368-670C-9
                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
```

Gaps ; 0

0; Indels Length 6;

Score 24; DB 4; L/ Pred. No. 4.1e+05;

```
Query Match 46.2%; Score 24; DB Best Local Similarity 100.0%; Pred. No. 4.1 Matches 4; Conservative 0; Mismatches
    ; OTHER INFORMATION: Asp is acetylated US-09-368-670C-17
                                                                                                                                                                                                  3 LVPC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Blaschuk, Jest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086, 470711
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 2726
LENGTH: 9
                        FEATURE:
OTHER INFORMATION: Representative cyclic modulating agent based on
CTHER INFORMATION: Protocadherin cell adhesion recognition sequence
US-09-187-859-2726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: Protocadherin cell adhesion recognition sequence US-09-839-5428-2726
                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50.0%; Score 26; DB 4; Length 9; 44.4%; Pred. No. 4.1e+05; ative 2; Mismatches 3; Indels
                                                                                                                                        Score 26; DB 3; Length 9;
Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17, Application US/09368670C; Batent No. 6767991; General INFORMATION:
APPLICANT: Boothringer Ingelheim (Canada) Ltd.; APPLICANT: Boothringer Ingelheim (Canada) Ltd.; TITLE OF INVENTION: Hepatitis C Inhibitor Peptides; TITLE OF INVENTION: Hepatitis C Inhibitor Peptides; FILE REFERENCE: 13/063-2-C2 CURRENT APPLICATION NUMBER: 06/095,945; PRIOR APPLICATION NUMBER: 60/095,945; PRIOR APPLICATION NUMBER: 60/095,186; PRIOR FILING DATE: 1998-08-10; PRIOR FILING DATE: 1997-08-11; PRIOR FILING DATE: 1997-08-11; PRIOR FILING DATE: 1997-08-11; PRIOR FILING DATE: 1907-08-13; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 17; LENGTH.
                                                                                                                                                                                      2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2726, Application US/09839542B Patent No. 6569996
                                                                                                                                        50.0%;
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                  Query Match
Best Local Similarity 44...
Best Local 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 44.4
Matches 4; Conservative
                                                                                                                                                                                                                                    1 CISVPLVPC 9
                                                                                                                                                                                                                                                             | :: || |
1 CFALDLVTC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CFALDLVTC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Hepatitis C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: VARIANT LOCATION: 1
                                                                                                                                                                                                                                                                                                                                                  RESULT 3
US-09-839-542B-2726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-368-670C-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

```
ö
                                                                                      APPLICANT: Zushi, Mitichitaka
APPLICANT: Zushi, Mitichitaka
APPLICANT: Zushi, Komakazu
APPLICANT: Zushi, Komisazu
APPLICANT: Suzuki, Koji
APPLICANT: Suzuki, Koji
APPLICANT: Matsuda, Akio
TITLE OF INVENTION: With Thrombin
NUMBER OF SEQUENCES: 80
CORRESPONDENCE ADDRESS:
ADDRESSEE: Birch, Stewart, Kolasch & Birch
STREET: 301 N. Washington St.
CITY: Falls Church
STATE: Virginia
COUNTRY: USA
ZIP: 22046-0747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/261,206A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match

46.2%; Score 24; DB 1; I

Best Local Similarity 60.0%; Pred. No. 4.1e+05;

Matches 3; Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
CLASSIFICATION: 530
FILOR APPLICATION DATA:
APPLICATION NUMBER: US 07/740,492
FILING DATE: 03-AUG-1991
ATTORING ADERN INFORMATION:
NAME: Svensson, Leonard R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 30330
REFERENCE/DOCKET NUMBER: 216-275P
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-241-1300
TELEFAX: 703-241-2848
US-08-261-206A-18; Sequence 18, Application US/08261206A; Patent No. 5574007; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 147, Application US/08189331
; Patent No. 5747334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 248345
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 PLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 PVAPC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-189-331-147
```

Gaps

ö

us-09-761-636a-14.closed.rai

```
Sequence 149, Application US/08189331
Patent No. 5747334
GENERAL INFORMATION:
APPLICANT: Kowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES: 186
CORRESPONDENCE ADDRESS:
ADDRESSE: Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 23; DB 1; Length 8; Pred. No. 4.1e+05; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONTEXT ADDRESS:
CORREST ADDRESS:
CONTEXT:
COUNTRY:
COUNTRY:
COUNTRY:
CONTEXT:
COMPUTER READABLE FORM:
MEDIUM TYPE:
COMPUTER:

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
44.2%; Score 23; DB 1; 1
Best Local Similarity 60.0%; Pred. No. 4.1e+05;
Matches 3; Conservative 1; Mismatches 1.
                         REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 1101-155
TELECHMUNICATION INFORMATION:
TELEFAX: 212 790-9090
TELEFAX: 212 869-8864/9741
TELEFAX: 66141 FENNIE
INFORMATION FOR SEQ ID NO: 148:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 anino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 1101-155
TELEPHONE: 212 790-9090
TELEPHONE: 212 869-8864/9741
TELEFAX: 212 869-8864/9741
TELEFAX: 66141 PENNIE
TELEFAX: 66141 PENNIE
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44.2%;
    Leslie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: unknown; MOLECULE TYPE: peptide US-08-189-331-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , MOLECULE TYPE: peptide US-08-189-331-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                   single
                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CVSAP 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-189-331-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
APPLICANT: Kay, B. K.
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES: 186
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 148, Application US/08189331
Patent No. 5747334
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
TUMBER OF SEQUENCES: 186
CORRESPENDENCES: Before ADDRESSE: Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44.2%; Score 23; DB 1; Length 8; 60.0%; Pred. No. 4.1e+05; tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER:

FILING DATE:

CLASSIFICATION:

ATTORNEY/AGENT INFORMATION:

NAME:

REGISTRATION NUMBER:

REGISTRATION NUMBER:

REGISTRATION NUMBER:

REJERENCE/DOCKET NUMBER:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELETEX:

TELETEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: New York
COUNTRY: U.S.A.
ZIP: 10036-2711
COMPUTER READBALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 1155 Avenue of the Americas CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFIWARD.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/189,331
FILING DATE: Concurrently herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SS: single
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                  STATE: New York COUNTRY: U.S.A. ZIP: 10036-2711
    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: CCCLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 CVSAP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-189-331-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-189-331-147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

ö

Gaps

2 CVSAP 6

셤

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: NIME, MINEO
APPLICANT: SAITO, YOSHIMASA
APPLICANT: SAITO, YOSHIMASA
APPLICANT: FUJIMURA, TAKAO
APPLICANT: ISHII, YOSHINORI
APPLICANT: NOGUCHI, YUJI
TITLE OF INVENTION: A NEW CEPHALOSPORIN C ACYLASE
NUMBER OF SEQUENCES: 64
CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
ADDRESSEE: P.C.
US-08-169-331-150

Sequence 150, Application US/08189331

Sequence 150, Application US/08189331

Settle No. 2747334

GENERAL INFORMATION:

APPLICANT: Kay, B. K.

APPLICANT: FOWLKes, D. M.

TITLE OF INVENTION: Totally Synthetic Affinity Reagents

NUMBER OF SEQUENCES: 186

CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44.2%; Score 23; DB 1; Length 8; 60.0%; Pred. No. 4.1e+05; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                     COUNTRY: N. O. S. A. ZIP.

ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUW TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/189,331
FILING DATE: CONCURTENTLY herewith
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 1755 JEFFERSON DAVIS HIGHWAY, SUITE 400
CITY: ARLINGTON
STATE: VIRGINIA
COUNTEX: USA
                                                                                                                                                                                                                    E: Pennie & Edmonds
1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1101-155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 1101-
TELECOMMUNICATION INFORMATION:
TELEPAN: 212 790-909
TELESTAX: 212 869-8864/9741
INFORMATION FOR SEQ ID NO: 150:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 9, Application US/08633760
Patent No. 5804429
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35S: single
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TOPOLOGY: unknown
; MOLECULE TYPE: peptide
US-08-189-331-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                      STATE: New York COUNTRY: U.S.A.
                                                                                                                                                                                                                                        STREET: 1155 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVSAP 5
                                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-633-760-9
```

```
Sequence 147, Application US/08471068
Patent No. 5948635
GENERAL INFORMATION:
APPLICANT: Kay B. K.
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 23; DB 1; Length 8; Pred. No. 4.1e+05; 3; Mismatches 1; Indels
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
CMDUTER: IBM PC compatible
CMDUTER: IBM PC compatible
CMPUTER: IBM PC compatible
CMPUTER: IBM PC compatible
CMPUTER: IBM PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/633,760
FILING DATE: 01-MAY-1996
CTASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 18-929-0 PCT
TELECPHONE: (703) 413-220
TELEFAX: (703) 413-2220
TELEFAX: (703) 413-2220
TELEFAX: CARRESTICE: SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Pennie & Edmonds
1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: New York
COUNTRY: U.S.A.
ZIP. 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA;
APPLICATION NUMBER: 08/189,331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: Miscrock, S. Leelie
REGISTRATION NUMBER: 18.72
REFERENCE/DOCKET NUMBER: 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 212 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 147:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 42.9
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-633-760-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | :||::
2 CAAVPML 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-471-068-147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

; 0

```
Sequence 149, Application US/08471068
Patent No. 5948635
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 CVSAP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-471-068-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                       Sequence 148, Application US/08471068
Patent No. 5948635
GENERAL INFORMATION:
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES: 186
CORRESPONDENTE ADDRESS:
ADDRESSEE: Pennie & Edmonds
                                                                                                                                             Query Match

44.2%; Score 23; DB 2; Length 8;
Best Local Similarity 60.0%; Pred. No. 4.1e+05;
Matches 3; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44.2%; Score 23; DB 2; Length 8; 60.0%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: New York
COUNTRY: U.S.A.
ZIP: 10036-2711
COMPUTER: ELDABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 1155 Avenue of the Americas CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIPICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/189,331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY AGENT INFORMATION:
NAME: Mistock, S. Leslie
REGISTRATION NUMBER: 18,872
REFRENCE/DOCKET NUMBER: 1101
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPAX: 212 8699 8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 148:
SEQUENCE CHARACTERISTICS:
                                                TOPOLOGY: unknown
MOLECULE TYPE: peptide
US-08-471-068-147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SSS: single
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3; Conservative
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: unknown
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                    1 CISVP 5
                                                                                                                                                                                                                                                        CVSAP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CVSAP 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                           RESULT 12
US-08-471-068-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-471-068-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
```

RESULT 13 US-08-471-068-149

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:

APPLICANT: Kay, B. K.

APPLICANT: Fowlkes, D. M.

TITLE OF INVENTION: Totally Synthetic Affinity Reagents

NUMBER OF SEQUENCES: 186

CORRESPONDENCE ADDRESS:

ADDRESSEE: Pennie & Edmonds

STREET: 1155 Avenue of the Americas

CITY: New York

STATE: New York

COUNTRY: New York

COUNTRY: U.S.A.
APPLICANT: KAY,
APPLICANT: KAY,
APPLICANT: KAY,
B. K.
APPLICANT: FOWLKES, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES: 186
CORRESPONDENCE ADDRESS:
ADDRESSEB: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 1036-ZJA
ZIP: 1036-ZJA
ZIP: TO036-ZJA
ZIP: TO036-ZJA
ZIP: TO036-ZJA
ZIP: READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: BR PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,068
FILING DATE:
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/189,331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 23; DB 2; I Pred. No. 4.1e+05; 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: U.S.A.
COMPUTER: U.S.A.
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
--weitter: IBM PC compatible
--weitter: PC compatible
--weitter: PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REPRENCE/DOCKET NUMBER: 1101-
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 790-9090
TELEFAX: 212 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 149:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             44.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 60.0°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; MOLECULE TYPE: peptide US-08-471-068-149
```

```
1 CISVPLVPC
                                                                                                                                                                                                                                  2 CVECP--PC
                                                                                                                                                                                  ò
                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
US-08-891-271-4
Sequence 4, Application US/08891271
Sequence 4, Application US/08891271
Sequence 4, Application US/08891271
Sequence 4, Application US/08891271
Sequence 1616546
GENERAL INFORMATION:
APPLICANT: Strom, Terry B.
TITLE OF INVENTION: Fusion Proteins with an Immunoglobulin TITLE OF INVENTION: Hing Region Linker
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
STREE: Hamilton, Brook, Smith & Reynolds, P.C.
STREET: Two Militia Drive
CITY: Lexington
STATE: Massachusetts
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 23; DB 2; Length 8; Pred. No. 4.1e+05; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:

EDIT 0.1.1

COMPUTER READABLE FORM:
COMPUTER: IBM CC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOUTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/891,271
FILING DATE: 10-7UJ-1997
CLASSIFICATION 1435
ATTORNEY/AGENT INFORMATION:
NAME: HOGIE, Dorean M.
REGISTRATION NUMBER: 36,361
REPERENCE/DOCKET NUMBER: B1H97-07
TELEPHONE: 617-861-6240
TELEPHONE: 617-861-9540
INFORMATION POR SEQ ID NO: 4:
SROTIENCE CHARACTERISTICS:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,068
                                                                                                                                                                                                                                                      1101-155
                                        PILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/189,331
FILING DATE:
ATTORNEY/ACENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REGISTRATION NUMBER: 1101-155
TELECHOMUNICATION INFORMATION:
TELECHOMUNICATION INFORMATION:
TELEPHONE: 212 790-9090
TELEFAX: 212 869-8864/9741
TELEFAX: 212 780-9090
TELEFAX: 212 869-8864/9741
FELEFAX: 212 869-8864/9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TOPOLOGY: unknown;
; MOLECULE TYPE: peptide
US-08-471-068-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CVSAP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
2 AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 33, Appl Sequence 143, Appl Sequence 143, Appl Sequence 142, Appl Sequence 142, Appl Sequence 15, Appl Sequence 5, Appli Sequence 5, Appli Sequence 5, Appli Sequence 21, Appl Sequence 30, Appl Sequence 675, Appl Sequence 675, Appl Sequence 675, Appl Sequence 1515, Appl Sequence 1516, Appl Sequence 1516, Appl Sequence 159, Appl Sequence 15, Appl Sequence 159, Appl Sequence 15, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 15, Appl Sequence 15, Appl Sequence 5, Appl Sequence 6, Appl Sequence 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                         1, 2005, 12:02:21 ; Search time 44 Seconds
(without alignments)
16.966 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Issued_Patents AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-549-008-43

US-08-549-008-43

US-08-549-008-42

US-08-549-008-42

US-08-549-008-42

US-08-549-008-42

US-09-671-089-13

US-09-671-089-13

US-09-461-697-21

US-09-461-697-21

US-09-436-469-5

PCT-USS-03610-5

US-09-436-469-5

US-08-431-484-21

US-08-493-434A-21

US-09-239-043D-1515

US-09-239-043D-1515

US-08-343-169

US-08-349-0840

US-08-349-0840

US-08-239-043D-169

US-08-239-043D-169

US-08-239-043D-169

US-08-239-043D-169

US-08-239-043D-169

US-08-239-043D-169
                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                           513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                    - protein search, using sw model
                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                         US-09-761-636A-13
56
1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0 seq length: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            April
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                             Title:
Perfect score:
                                                                                    OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum DB
Maximum DB
                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
No.
```

		D D D D D D D D D D D D D D D D D D D	.0	
5, Appli 17, Appl 110, Appl 110, Appl 676, App 686, App 11516, Ap 11516, Ap 11786, Appl 1186, Appl 1147, Appl 1147, Appl 1149, Appl 1150, Appl 1160, Appl 1160, Appl 1161, Appl		pue	Gaps	
Sequence Seq		f and Methods 0	0;	
\(\alpha \text{A} \text		o _m 300	gth 9; Indels	
7 7 8 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		Sampl Sampl 1.25	; Length 05; 0; Ind	
US-08-374-983A-5 US-08-377-781A-17 US-09-239-043D-10 US-09-239-043D-16 US-09-239-043D-17 US-09-239-043D-13 US-09-239-043D-13 US-09-239-043D-13 US-09-239-043D-13 US-09-239-043D-13 US-08-221-171A-8 US-08-221-171A-8 US-08-189-331-149 US-08-189-331-149 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148 US-08-189-331-148	TS	or the Detical of The French and Version #	DB 1 .1e+ es	
-3.344 -3.347 -2.339 -0.239 -0	ALIGNMENT		re 36; d. No. 4 Mismatch	
US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08 US-08	AL	a, Akira Lon OS/08331383 a, Akira Compositions for proteases in Birateof ESS: ESS: ESS: EN ORM: FC-DOS/NS-DOS PC-DOS/NS-DOS DATA: PR-Bease #1.0, DATA: B. ER: 29,684 A24 A24 A24 B. ER: 29,684 B. ER: 29,684 B. ER: 29,684 B. ER: 29,684 A100: 33: ER: 20.08 B. ER: 20.08 B	Sco Pre 4;	
		/08 iisk iisk iisk iisk iisk iisk iisk iis	4.3%; 0.0%; ve	
00000000000000000000000000000000000000		TIT 1 8-31-383-33 quence 33 Application US/0833138 quence 33 Application US/0833138 tent No. 5665809 ENERAL INFORMATION: Akira APPLICANT: Romoriya, Akira APPLICANT: Packard, Beverly S. TITLE OF INVENTION: Thereof NUMBER OF SEQUENCES: 56 CORRESPONDENCE ADDRESS: ADDRESSEE: Townsend and Towns STREET: California COUNTRY: USA ZIP: 94105 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-D SOFTWARE: Patentin Release #1 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/331 FILING DATE: 29.684 REGISTRATION NUMBER: 29,684 REGISTRATION NUMBER: 29,684 REGISTRATION NUMBER: 29,684 REGISTRATION NUMBER: 29,684 REGISTRATION NUMBER: 1866 TELECOMMUNICATION INFORMATION: NAME: Dow, Karen B. REGISTRATION NUMBER: 1866 TELECOMMUNICATION INFORMATION: TELEPHONE: 415-326-2400 SEQUENCE CHARACTERISTICS: LENGTH: 9 amino acids TELEPHONE: ginear MOLECULE TYPE: peptide	6 5 7ati	10
		licatio 100 100 100 100 100 100 100 1	n Similarity 4; Conserv	
		11 O NATIONAL SERVICE OF THE SERVICE	ar	اري - ا
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		-33 -35 60809 TI PORMATION: TI	Limi	SVPLSVPC
44444444466666666666666666666666666666		131-383-3: ace 33; ace 32; ace 33; ace	ch 11 Si 4;	σ
		1. 1 1. 331.383. 1. 931.383. APPLICANT APPLICANT TITLE OF TOWNER	/ Match Local S nes	
0 0 0 1 0 1 0 1 0 1 0 1 0 0 0 0 0 0 0 0		SUL Second GE GE TIP	Query Ma Best Loo Matches	
		M W T T T T T T T T T T T T T T T T T T		ð i

```
Sequence 31, Application US/08331383
; Sequence 31, Application US/08331383
; Patent No. 5605809
; GENERAL INFORMATION;
; PAPLICANT: ROACAIN, Akira
; APPLICANT: Packard, Beverly S.
; TITLE OF INVENTION: Compositions for the Detection of
; TITLE OF INVENTION: Thereof
; TITLE OF INVENTION: Thereof
; TITLE OF INVENTION: Thereof
; CORRESPONDENCE ADDRESS: 56
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Townsend and Townsend Khourie and Crew
; STREET: One Market Plaza, Steuart Tower, Suite 2000
; CITY: San Francisco
; STATE: California
; COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 36; DB 3; Length 9;
Pred. No. 4.1e+05;
4; Mismatches 0; Indels
       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: STEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CUBRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/802,981
FILING DATE: 20-FBB-1997
CLASSIPICATION: 435
ATTORNEY AGENT INFORMATION:
NAME: Hunter. Tom
REGISTRATION NUMBER: 016865-000300US
REFERENCE/DOCKET NUMBER: 016865-000300US
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION SEQ ID NO: 143:
SEQUENCE CHARACTERISTICS:
LUNFORMATION FOR SEQ ID NO: 143:
LUNFORMATION acids
LENGTH: 9 amino acids
LENGTH: 9 amino acids
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/331,383
FILING DATE: 28-OCT-1994
ATONEY/ADARE: AS-OCT-1994
ATONEY/ADARE: INFORMATION:
NAME: DOW, KATER B.
REGISTRATION NUMBER: 29,684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 16
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-326-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 50.0-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 415-326-2422
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 amino acids
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ::|:|:|
2 AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 9 amino a
TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-802-981-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-331-383-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                    Sequence 43, Application US/08549008
Patent No. 5714342
GENERAL INFORMATION:
APPLICANT: Fackard, Beverly S.
TITLE OF INVENTION: Compositions for the Detection of
TITLE OF INVENTION: Protease in Biological Samples and Methods of Use Thereof
NUMBER OF SECUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 143, Application US/08802981
Patent No. 6037137
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Packard, Beverly S.
ITILE OF INVENTION: Compositions for the Detection of Enzyme
TITLE OF INVENTION: Compositions for the Detection of Enzyme
TITLE OF INVENTION: Activity in Biological Samples and Methods of Use Thereof
CORRESPONDENCES: 231
CORRESPONDENCES: 231
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STRIE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 36; DB 1; Length 9; Pred. No. 4.1e+05; 4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER RELABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/549,008
FILING DATE: 27-OCT-1995
PRIOR APPLICATION 135
PRIOR APPLICATION NUMBER: US 08/331,383
FILING DATE: 28-OCT-1994
ATTOKNEY/AGENT INFORMATION:
MANNER ATTOKNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,762
REFERENCE DOCKET NUMBER: 016865-000110US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64.3%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
US-08-802-981-143
                                         RESULT 2
US-08-549-008-43
                                                                                                                                                                                                                                                                                                                                                                                       STATE: Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-549-008-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

Gaps

; 0

```
GENERAL INFORMATION:

BAPLICANT: O'MADONY, Daniel J.

APPLICANT: O'MADONY, Daniel J.

APPLICANT: O'MADONY, Daniel J.

TITLE OF INVENTION: MEMBRANE TRANSLOCATING PEPTIDE DRUG DELIVERY SYSTEM FILE REFERENCE: E1067/20018

CURRENT APPLICATION WHMBER: US/09/671,089

CURRENT FILING DATE: 2000-09-27

PRIOR APPLICATION NUMBER: 60/156,246

PRIOR FILING DATE: 1999-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58.9%; Score 33; DB 3; L
50.0%; Pred. No. 4.1e+05;
iive 3; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 13, Application US/09671089
; Patent No. 6780846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hunter, Tom
REGIGTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 0168(
TELECOMMUNICATION INPORMATION:
TELEPAN: (415) 576-0200
TELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 142:
SEQUENCE CHARACTER STICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 59
SOFTWARE: PatentIn version 3.1
SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION: NAME: Hunter, Tom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 50.0 Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 AIPXSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                      US-08-802-981-142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
US-09-671-089-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 42, Application US/08549008
Patent No. 5714342
GENERAL INFORMATION:
APPLICANT: Fackard, Beverly S.
TITLE OF INVENTION: Compositions for the Detection of
TITLE OF INVENTION: Protease in Biological Samples and Methods of Use Thereof
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58.9%; Score 33; DB 1; Length 9; 50.0%; Pred. No. 4.1e+05; Live 3; Mismatches 1; Indels
                                                                                                                                                                             Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/549,008
FILING DATE: 27-OCT-1995
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/331,383
FILING DATE: 28-OCT-1994
ATTOOREY/AGENT INFORMATION:
                                                  ) NAME/KEY: Region
; LOCATION: one-of(5)
; OTHER INFORMATION: /note= "Xaa is norleucine."
US-08-331-383-31
                                                                                                                                                                         Score 33; DB 1; I
Pred. No. 4.1e+05;
3; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         016865-000110US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 5
OTHER INFORMATION: /product= "Nle"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 014
TELECOMMUNICATION: INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPAX: (415) 576-0300 INPORMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                           Query Match
Best Local Similarity 50.0%;
Matches 4; Conservative 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 58.9
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 9 amino acids
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                               3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
                                                                                                                                                                                                                                                                                       ::| |:||
AIPXSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ::| |:||
AIPXSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
US-08-549-008-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-549-008-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

; 0

Gaps

;

1; Indels Length 9;

```
Sequence 1-25. Application US/08802981
| Patent No. 6037137 |
| Pate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/802,981
FILING DATE: 20-FEB-1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  016865-000300US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LOCATION: 5
; OTHER INFORMATION: /product= "Nle"
US-08-802-981-142
```

```
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JS-09-461-697-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-900-321-5
                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/08212190A
Sequence 5, Application US/08212190A
Setent No. 565223
GENERAL INFORMATION:
APPLICANT: KOHN, Elise C.
APPLICANT: KOHN, Elise C.
TITLE OF INVENTION: DNA ENCODING CAI RESISTANCE PROTEINS AND TITLE OF INVENTION: USES THEREOF
NUMBER OF SEQUENCES: 0.
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew
STREET: Steart Street Tower, One Market Plaza
CITY: San Francisco
CONNECT California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

COREATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/212,190A

FILING DATE: 14-MAR-1994

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: HUNTER: TOM

REGISTRATION NUMBER: 15280-204US

REFERENCE/DOCKET NUMBER: 15280-204US

REFERENCE/DOCKET NUMBER: DHHS Ref: No. 5652223 E-112-94/O

TELEPHONE: (415) 543-5643

INFORMATION: COMPANION: COMPANION: COMPANION: COMPANION FOR SEQ ID NO: 5:

INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                            .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                        Query Match 57.1%; Score 32; DB 4; Length 10; Best Local Similarity 50.0%; Pred. No. 29; Matches 5; Conservative 2; Mismatches 3; Indels
                     ; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: membrane translocating peptide, cyclic US-09-671-089-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44.6%; Score 25; DB 1; Length 10; 66.7%; Pred. No. 3.8e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                  1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                               1 CLPVLLAAPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 PLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 PAPVPC 8
                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
US-08-212-190A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-212-190A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
LENGTH: 10
                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

RESULT 9 US-08-900-321-5 Sequence 5, Application US/08900321 ; Patent No. 5981712

```
PREDICATION: Title of NUMBERS. There is a process of the process o
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                     RESULT 11
US-09-436-469-5
; Sequence 5, Application US/09436469
; Patent No. 6790936
; GENERAL INFORMATION:
; APPLICANT: Kohn, Elise C.
Liotta, Lance A.
; Kim, Young S.
; TITLE OF INVENTION DNA Encoding CAI Resistance Proteins and Uses Thereof
                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: DATE: PC-DOS/MS-DOS
SOFTWARE: PATEMENT Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/436,469
FILING DATE: 08-No. 679038-1999
CLASSIFICATION: <UNKNOWN>
PRIOR APPLICATION OWNER: US/08/900,321
FILING DATE: 25-JUL.1997
APPLICATION NUMBER: US/08/900,321
FILING DATE: 25-JUL.1997
ATTORNEY/AGENT INFORMATION:
                                                          Score 25; DB 3; Length 10; Pred. No. 3.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44.6%; Score 25; DB 4; Length 10; 66.7%; Pred. No. 3.8e+02; tive 0; Mismatches 2; Indels
                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew LL
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 015280-204100US
TELECOMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
                                                                                                2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-09-436-469-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                        Query Match
Best Local Similarity 44.4%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 66.7
Matches 4; Conservative
; ORGANISM: Homo sapiens
US-09-461-697-21
                                                                                                                                                                        2 CVMTHLSLP 10
                                                                                                                                      1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 PLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
PCT-US95-03610-5
                                                                                                                                      ઠે
                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
```

```
APPLICANT: ALTMAN, Irina B
APPLICANT: MARNOV, Yulia G
APPLICANT: YAMPOLSKAYA, Tatyana A
APPLICANT: Latyana V
APPLICANT: LATYANA ALTWANT ACETYLGLUTAMATE SYNTHASE AND METHOD FOR L-ARGININE PROI
TITLE OF INVENTION: NEW MOTANT ACETYLGLUTAMATE SYNTHASE AND METHOD FOR L-ARGININE PROI
FILE REFERENCE: 2099/3USO
CURRENT PLILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: RUSSIAN FEDERATION 2001112869
PRIOR APPLICATION NUMBER: RUSSIAN FEDERATION 2001112869
PRIOR PILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PALENTIN VERSION 3.1
SEQ ID NO 5
LENGTH: 5
LENGTH: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                DNA ENCODING CAI RESISTANCE PROTEINS AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25
SURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/03610
FILING DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/212,190
FILING DATE: 14-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Kenneth A.
REGISTRATION NUMBER: 31,677
REFERENCE/DOCKET NUMBER: 15280-204000PC
REFERENCE/DOCKET NUMBER: DHHS Ref. NO. E-112-94/0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 25; DB 5; 1
Pred. No. 3.8e+02;
0; Mismatches 2.
                                                                        TITLE OF INVENTION: DNA ENCODING CAJ
TITLE OF INVENTION: USES THEREOF
NUMBER OF SEQUENCES: 10
COMPUTER READABLE FORM:
MEDIUM TYPE: RIDAPY disk
COMPUTER: IBM PC COMPALIALE
COMPUTER: IBM PC COMPALIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
, OTHER INFORMATION: synthetic peptide
US-09-886-135A-5
Sequence 5, Application PC/TUS9503610 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5, Application US/09886135A Patent No. 6790647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.6%; Scoilarity 66.7%; Pre
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: 5
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 PLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 PAPVPC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-886-135A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCT-US95-03610-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
```

```
7 SVPC 10
                                                                                                                 RESULT 15
US-08-476-134A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                           .
0
                                                                                                                                                                                                                                                                                                  Sequence 21, Application US/08483434A

Faderic 21, Application US/08483434A

GENERAL INFORMATION:
APPLICANT: BYAL, Jacob
APPLICANT: THAMILTON:
APPLICANT: TUSZYNSKI, George P.
TITLE OF INVENTION: Synthetic Analogs of Thrombospondin and TITLE OF INVENTION: Therapeutic Use Thereof
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS: 3
CORRESPONDENCE ADDRESS: ADDRESSE: PANITCH SCHWARZE JACOBS & NADEL, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      h 42.9%; Score 24; DB 1; Length 6; Similarity 100.0%; Pred. No. 4.1e+05; 4; Conservative 0; Mismatches 0; Indels
                                                        0; Indels
  Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: 1910-1919
COMPUTER: FRADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IP PC Compatible
COMPUTER: Patentin PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURSENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,434A
FILING DATE: 07-JUN-1995
FILING DATE: 25-MAY-1995
FILING DATE: 25-MAY-1995
FILING DATE: 25-MAY-1995
FILING DATE: 24-MAY-1995
FILING DATE: 24-MAY-1995
FILING DATE: 24-MAY-1996
FILING DATE: 14-MAR-1994
FRICATION NUMBER: US 08/185,614
FRILNG DATE: 01-MAR-1993
FILING DATE: 10-MAR-1993
FILING DATE: 24-SEP-1990
FRICATION NUMBER: US 07/587,197
FILING DATE: 24-SEP-1990
FRICATION NUMBER: US 07/587,197
FILING DATE: 22-EEB-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: PANTICH SCHWARZE JACOBS & NADEL, P.C. STREET: 1601 Market Street, 36th Floor CITY: Philadelphia STATE: Pennsylvania COUNTEX: USA.
42.9%; Score 24; DB 4; Le
100.0%; Pred. No. 4.1e+05;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 9598-3U6 (9049)
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (215) 567-2020
TELEFAX: (215) 567-2991
TELEX: 831-494
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
LENGTH: 6 amino acids
  Query Match 42.9
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 4; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                    7 SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino a STRANDEDNESS:
                                                                                                                                                                                                                                                                                            US-08-483-434A-21
                                                                                                                       ð
```

```
RESULT 15

1. Sequence 30, Application US/08476134A

1. Septiment No. 623910

1. TITLE OF INVENTION: THEREOF NALOGS OF THROMBOSPONDIN AND THERAPEUTIC USE TITLE OF INVENTION: THEREOF NO. 90476,134A

1. CURRENT FELIKO DATE: 1995-06-009

1. FILE REFERENCE: 07206-0009

1. FRIOR FILING DATE: 1995-06-07

1. PRIOR FILING DATE: 1993-06-02

1. PRIOR FILING DATE: 1993-06-25

1. PRIOR FILING DATE: 1994-06-24

1. COTHER INFORMATION: Description of Artificial Sequence

1. COTHER INFORMATION: DESCRIPTION: DESCRIPTION SEQUENCE

1. DESCRIPTION SECURITION: DESCRIPTION SECURITION SECURITION SECURITION SECURITION SECURITION SECURITION SECURITION
```

Mon Apr

```
April 1, 2005, 11:19:07; Search time 11.5 Seconds (without alignments) 75.300 Million cell updates/sec
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                    OM protein - protein search, using sw model
                                                                                                                                                         Run on:
```

283416 seqs, 96216763 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 US-09-761-636A-14 52 1 CISVPLVPC 9 Title: Perfect score: Sequence: Scoring table: Searched:

791 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 9

Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

in the state of th	Describeron	MHC H2-L antigen -	glycogen phosphory	118K stomach cance	locustamyotropin I	enamelin f - bovin	tetrameric protein	metallothionein-A	coat protein beta	glycoprotein compo	205K excantigen -	granulocyte-colony	60K Ca binding pro		lectin - potato (f	•	ATPase R1 subunit	flagellar protein	aggrecan - bovine	endoglycosylcerami	major postsynaptic	conopressin S - co	Ig heavy chain CRD	Ig heavy chain CRD	collagen alpha 2(V	R-phycoerythrin al	dnaA protein - Pse	コ	hypothetical colla	seed protein ws-5
SUMMARIES	77	I65546	A60521	A60356	A61620	S10783	S66419	151049	S13636	H48394	G33098	154017	PT0080	148105	S21288	PH0943	D48186	E42364	S42620	B39745	A42689	B28495	PT0247	PT0268	S26508	B22565	B34835	B26206	A35039	E61491
c a	9 !	7	7	7	~	~	7	7	~	7	~	4	7	7	~	~	~	~	7	~	7	~	~	~	N	~	7	~	4	7
	nengen	9	ß	σ	σ	œ	σ	4	6	9	80	æ	σ	7	œ	σ	9	S	7	œ	80	σ	σ	σ,	σ	ស	φ	9	9	7
		۳.	'n	'n	9	۲.	۲.	8.	æ.	٠	8	8	80	•	6.				0	0	0	0	0	0	0	٦.	٦.	٦.	٦.	.1
% Query	FIG	42	36	36	34	32	32	30	30	28	28	28	28	26	56	56	56	25	25	25	25	25	25	25	25	23	23	23	23	23
0 0 0 0	2005	22	19	19	18	17	17	16	16	15	15	15	15	14	14	14	14	13	13	13	13	13	13		13	12	12	12	12	12
Result No		٦	61	М	4	S	9	7	۵	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29

RESULT 3

Ig H chain V-D-J r	T-cell receptor be	catch-relaxing pep	hypothetical prote	T-cell receptor be	neutral proteinase	3',5'-cyclic-GMP p	T-cell receptor be	kidney and bladder	phosphoenolpyruvat	D-amino-acid oxida					
PH1602	PH0932	ECMUCR	S16324	PH0934	A35180	A53797	PH0935	PH0937	PH0902	PH0917	PH0918	PH0921	G58502	855696	S39437
7	0	~	7	~	~	0	~	7	7	7	7	~	7	~	7
7	7	7	Φ)	6 0	8	σ	σ,	σ	<u>ه</u>	Ò	σ	Q	σ	Φ	σ
12 23.1	12 23.1	. 12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1	12 23.1
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

	RESULT 1 165546 MHC H2-L antigen - mouse (fragment) C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999 C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999 C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999 C;Date: 02-Aug-1996 #sequence revision 16546 A;Title: Destailed analysis of the mouse H-2Kb promoter: Enhancer-like sequences and their A;Reference number: 152778; MUID:86106202; PMID:3510743 A;Reference number: 155778; MUID:86106202; PMID:3510743 A;Reference number: 15778; MUID:86106202; PMID:3510743 A;Reference number: 165846 A;Accession: 165846 A;A
	Query Match 42.3%; Score 22; DB 2; Length 6; Best Local Similarity 75.0%; Pred. No. 2.8e+05; Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
	Oy 6 LVPC 9 : Db 1 MVPC 4
	RESULT 2 A60521 glycogen phosphorylase (EC 2.4.1.1), muscle - mullet (Liza ramada) (fragment) NyAlternate names: glycogen phosphorylase b G.Speries: Liza ramada
	C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004 C;Accession: A60521 R;Bonamusa, L.; Baanante, I.V.
	Comp. Biochem. Physiol. B 95, 295-301, 1990 A;Title: Purification and characterization of glycogen phosphorylase B from skeletal musc A;Reference number: A60521; MUID:90227907; PMID:2109669 A;Accession: A60521 A;Molecule type: protein
_	A;Residues: 1-5 <bon> C;Keywords: glycosyltransferase; hexosyltransferase; phosphoprotein F;3/Binding site: phosphate (Ser) (covalent) (by phosphorylase b kinase) #status experime</bon>
	Query Match 36.5%; Score 19; DB 2; Length 5; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
A (Oy 2 ISVP 5

Gaps

;

```
tetrameric proteinase precursor, 60K, dithiothreitol-sensitive - spinach (fragment)
C;Species: Spinacia oleracea (spinach)
C;Abar-1997 #sequence_revision 29-Aug-1997 #text_change 09-Jul-2004
C;Accession: 866419
R;Kuwabara, T.
FBBS Lett. 371, 195-198, 1995
A;Fitle: The 60-KDa precursor to the dithiothreitol-sensitive tetrameric protease of spir A;Reference number: 866419; MUID:95402209; PMID:7672127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
C;Accession: 151049
R;Olsson, P.E.; Kling, P.; Erkell, L.J.; Kille, P.
Bur. J Biochem. 230, 344-349, 1995
A;Title: Structural and functional analysis of the rainbow trout (Oncorhyncus mykiss) met A;Reference number: 151049; MUID:95324545; PMID:7601121
A;Accession: 151049
A;Reference number: DNA
A;Reference DNA
A;Residues: 1-4 <OLS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           coat protein beta chain, Golgi-derived - rabbit (fragment)

N;Alternate names: beta-COP protein
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 19-Mar-1997 #sequence_revision 24-Mar-1999 #text_change 09-Jul-2004
C;Accession: S13636
R;Serafini, T.; Stenbeck, G.; Brecht, A.; Lottspeich, F.; Orci, L.; Rothman, J.E.; Wielar Nature 349, 215-220, 1991
A;Title: A coat subunit of Golgi-derived non-clathrin-coated vesicles with homology to the A;Reference number: S13636; MUID:91101693; PMID:1898984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Cross-references: EMBL:X80181; NID:g1019799; PIDN:CAA56466.1; PID:g4379328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30.8%; Score 16; DB 2; Length 4; ilarity 100.0%; Pred. No. 2.8e+05; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 30.8%; Score 16; DB 2; Length 9; Best Local Similarity 50.0%; Pred. No. 2.8e+05; Matches 2; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 17; DB 2; 1
Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                          A; Accession: S66419
A; Molecule type: protein
A; Residues: 1-9 < KUW>
A; Cross-references: UNIPROT: 09T2K8; UNIPROT: 041388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32.7%; Sco...
50.0%; Pred. No. 2...
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: UNIPROT:Q7M2R5
C;Superfamily: coatomer complex beta chain
C;Keywords: Golgi apparatus; protein transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     metallothionein-A - rainbow trout (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
....^hes 2; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: protein A;Residues: 1-9 <SER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best_Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |::|
2 PILP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 PLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: S13636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                             RESULT (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S13636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              151049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 09-Jul-2004
C;Accession: A60356
R;Shiraishi, Y.
Int. J. Cancer 45, 783-787, 1990
A;Title: Western blotting analysis for malignant lymphoma and stomach cancer at Ashacession: A60356, MUID:90216080; PMID:2323853
A;Accession: A60356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   enamelin f - bovine (fragment)

(Species: Bos primigenius taurus (cattle)

(Spacies: 19-Mar-1997 #sequence_revision 21-Nov-1998 #text_change 21-Nov-1998

(Stacession: 810783

R:Strawich, E.; Glimcher, M.J.

R:Strawich, E.; Glimcher, M.J.

A;Title: Tooth 'enamelins' identified mainly as serum proteins. Major 'enamelin' is albuta. A;Reference number: $10780; MUID:90336641; PMID:2379503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; Kochansky, J.P.; De Loof, A. Instect Biochem. Mol. Biol. 22, 447-452, 1992
A;Title: Isolation, identification and synthesis of locustamyotropin III and IV, two add A;Reference number: A61620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Species: Locusta migratoria (migratory locust)
Date: 21-Jul-1995 #sequence_revision 28-Jul-1995 #text_change 09-Jul-2004
Accession: A61620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A Status: preliminary
A;Molecule type: protein
A;Residues: 1-9 <SCH>
A;Cross-references: UNPROT:P41489
C;Keywords: amidated carboxyl end; neuropeptide
F;9/Modified site: amidated carboxyl end (Leu) *#status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                        Score 19; DB 2; Lengtn >,
Pred. No. 2.88+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32.7%; Score 17; DB 2; Length 8; 60.0%; Pred. No. 2.8e+05; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 34.6%; Score 18; DB 2; Length 9; Local Similarity 75.0%; Pred. No. 2.8e+05; les 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         locustamyotropin III - migratory locust
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Molecule type: protein
A,Residues: 1-8 <STR>
C,Keywords: enamel; phosphoprotein
                                                                                                                                                                                                                                                                                           A;Molecule type: protein
A;Residues: 1-9 < SHI>
A;Cross-references: UNIPROT:Q7M4R6
C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                     36.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 VPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :|| |
1 IPLKP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 VPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MPLPP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 PFVP 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: A61620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: S10783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

ö

ö

ô

Gaps

ઠે 셤

```
C;Species: Rana esculenta (edible frog)
C;Species: Rana esculenta (edible frog)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004
C;Date: 16-Jul-1999 #sequence_revision 175, 444-450, 1991
B;Crees. S; Zorzato, F.; Chiozzi, P.; Melandri, P.; Volpe, P.; Pozzan, T.
B;Creen. Biophys. Res. Commun. 175, 444-450, 1991
A;Ritle: Frog brain expresses a 60 kDa Ca2+ binding protein similar to mammalian calretic A;Reference number: PT0080; MUD:91207333; PMID:2018493
A;Accession: P7PC: protein
A;Residues: 1-9 creein
A;Residues: 1-9 creein
A;Cross-references: UNIPROT:Q7LZT5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dihydrofolate reductase - Chinese hamster (fragment)
C;Species: Cricetulus griseus (Chinese hamster)
C;Species: Cricetulus griseus (Chinese hamster)
C;Date: 04-58p-1997 #sequence_revision 07-Nov-1997 #text_change 05-Nov-1999
C;Accession: I48105
R;Azizkhan, J.C.; Vaughn, J.P.; Christy, R.J.; Hamlin, J.L.
Biochamistry, 25, 6228-6238, 1986
A;Title: Nucleotide sequence and nucleose hypersensitivity of the Chinese hamster dihydromarker number: 148105; MUID:87076541; PMID:3024702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C.Species: Solanum tuberosum (potato)
C.Date: 19-Mar-1997 #sequence_revision 05-Dec-1998 #text_change 09-Jul-2004
C.Date: 19-Mar-1997 #sequence_revision 05-Dec-1998 #text_change 09-Jul-2004
C.Accession: S21288
R.Millar, D.J.; Allen, A.K.; Smith, C.G.; Sidebottom, C.; Slabas, A.R.; Bolwell, G.P.
Biochem. J. 283, 813-821, 1992
A,Title: Chitin-binding proteins in potato (Solanum tuberosum L.) tuber. Characterization A,Reference number: S21288; MUID:92272683; PMID:1590771
A,Reference Type: protein
A,Nolecule type: protein
A,Nolecule type: protein
A,Residues: 1-8 <MLL>
                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Cross-references: GB:M14771; NID:g191055; PIDN:AAA36975.1; PID:g191056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26.9%; Score 14; DB 2; Length 7; 66.7%; Pred. No. 2.8e+05; Live 1; Mismatches 0; Indels
                     Score 15; DB 4; Length 8; Pred. No. 2.8e+05; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28.8%; Score 15; DB 2; Length 9; 100.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-7 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                  60K Ca binding protein - edible frog (fragment)
                     28.8%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best_Local Similarity 66.7
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Conservative
                                                                                     3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - potato (fragment)
                           Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 3; Conserv
                                                                                                                                               5 PLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 PLV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 PLV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: 148105
                                                                                                                                                                                                   3 PLGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               $21288
                                                                                                                                                                                                                                                                                                                          PT0080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                               ò
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                glycoprotein component 16/major fat-globule membrane protein/MFG-E8 homolog - bovine (fr C; Species: Bos primigenius taurus (cattle)
C; Date: 19-Nov-1993 #sequence_revision 18-Nov-1994 #text_change 07-Feb-1997
C; Accession: H48394
R; Mather, I.H.; Banghart, L.R.; Lane, W.S.
Biochem. Nol. Biol. Int. 29, 545-554, 1993
A; Title: The major fat-globule membrane proteins, bovine components 15/16 and guinea-pig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: Alteration of amino-terminal codons of human granulocyte-colony-stimulating fac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: synthetic
A;Note: human gene engineered and expressed in Echerichia coli
C;Date: 28-Jan-2000 #sequence_revision 28-Jan-2000 #text_change 28-Jan-2000
C;Accession: 154017
R;Devlin, P.E.; Drummond, R.J.; Toy, P.; Mark, D.F.; Watt, K.W.; Devlin, J.J.
Gene 65, 13-22, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Plasmodium falciparum
C;Date: 24-Aug-1990 #sequence_revision 24-Aug-1990 #text_change 09-Jun-2000
C;Accession: G33098
R;Nichols, J.H.; Hager, L.P.
A;Reference number: A33098
A;Reference number: A33098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4, Cross-references: GB: M20922; NID: 9806638; PIDN: AAA66353.1; PID: 9183043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       granulocyte-colony stimulating factor precursor - synthetic (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      205K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.8%; Score 15; DB 2; Length 8; 100.0%; Pred. No. 2.8e+05; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Note: sequence extracted from NCBI backbone (NCBIP:131518)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                II-like sequences.
A; Reference number: A48394; MUID:93250576; PMID:8485470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reference number: 154017; MUID:88284374; PMID:2456256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 15; DB 2; I
Pred. No. 2.8e+05;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Accession: 154017
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-8 <DEV>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 28.8%;
Best Local Similarity 50.0%;
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Experimental source: milk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: protein A; Residues: 1-6 < MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A Status: preliminary
A Molecule type: protein
A, Residues: 1-8 < NIC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 VPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VELLGC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: H48394
A; Status: preliminary
VPLV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VPL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
G33098
```

ઠ 원 Matches

ઠે g RESULT 11

```
T-cell receptor beta chain V-D-J region (clone 14) - rat (fragment)
C;Species: Rattus norregicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Accession: PH0943
R;Gold, D.P.; Offiner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
A;Title: Analysis of T cell receptor beta chains in Lewis rats with experimental allergi
                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: PH0943
A; Molecule type: mRNA
A; Readdues: 1-9 < COL>
A; Exactioners 1-9 < COL>
A; Exactioners 1 source: complete Freund's adjuvant-immunized lymph node
A; Note: the authors translated the codon GAC for residue 8 aas Glu
C; Keywords: T-cell receptor
                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
A;Cross-references: UNIPROT:Q7M1V6
A;Experimental source: var. Ulster Sceptre
C;Function:
A;Description: may be involved in defence mechanism of the plant
C;Keywords: hydroxyproline; lectin
                                                                                                                                                                        Query Match 26.9%; Score 14; DB 2; Length 8; Best Local Similarity 50.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 26.9%; Score 14; DB 2; Length 9; Best Local Similarity 42.9%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLV 7
                                                                                                                                                                                                                                                                                              3 SVPLVP 8
                                                                                                                                                                                                                                                                                                                                           3 STPSPP 8
                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                 ò
```

Search completed: April 1, 2005, 11:25:15 Job time : 11.5 secs

1 CASTDTV 7

g

prochloroco homo sapien zizania aqu streptochae sorghum bic lolium pere danthonia s chasmanthiu

Q7mlv6 B83532 1 Q0cldp8 p Q0x3x1 p Q0x3x1 p Q0x1x2 q Q0x1x3 q Q0x1x3 q Q0x1x3 q Q0x1x5 q Q0x1x6 q Q0x1

synechococc solanum tub lactobacill pseudomonas

Q9trx8

```
MEDLINE=90174912; PubMed=2308822;
Rydborg B., Hall J., Karran P.;
Nucleic Acids Res. 18:17-21(1990).
-!- FUNCTION: Involved in the cellular defense against the biological cyfunction: Involved in the cellular defense against the biological guanine in DNA by stoichiometrically transferring the alkylated guanine in DNA by stoichiometrically transferring the alkyl group at the O-6 position to a cysteine residue in the enzyme. This is a suicide reaction: the enzyme is irreversibly inactivated.
-!- CATALYTIC ACTIVITY: DNA (containing 6-O-methylguanine) + protein L-cysteine = DNA (without 6-O-methylguanine) + protein S-methyl-L-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein sequencing; DNA repair; Methyltransferase; Transferase
                                                                                                                                                                                                                                                    01-DEC-1992 (Rel. 24, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Methylated-DNA--protein-cysteine methyltransferase (EC 2.1.1.63) (6
methylquanine-DNA methyltransferase) (MGMT) (O-6-methylquanine-DNA
                                                                                                                                                                                                                                                                                                                  Bos taurus (Bovine).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
Bovinae, Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alkyl group acceptor (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38.5%; Score 20; DB 1; Length 9; 75.0%; Pred. No. 1.6e+06; rive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  967 MW; 325171A720476047 CRC64;
                                                                                                                                                                                                                       9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -! SIMILARITY: Belongs to the MGWI family
InterPro; IPR001497; Methyltransf 1.
PROSITE; PS00374; MGWI; PARTIAL.
                                                                                                                                                                   ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
         007354
Q9TRX8
Q7M1V6
P83532
Q6LDP8
Q6QF45
Q6PT73
Q6PT75
Q6PT75
Q6PT77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                    Q6PT78
                                                                                                                                                                                                                                            01-DEC-1992 (Rel. 24, Created)
01-DEC-1992 (Rel. 24, Last seg
                                                                                                                                                                                                                                                                                               alkyltransferase) (Fragment).
Name=MGMT;
 000000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 AA;
\alpha\circ o\circ o\circ o\circ o\circ o\circ o\circ o\circ o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   σ
 TISSUE=Thymus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 LVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cysteine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3;
                                                                                                                                                                                                                       BOVIN
 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                       MGMT_BOV
P29177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9P8E5
Q9P8E5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct
                                                                                                                                                                                                  RESULT 1
MGMT BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
Q9P8E5
 AD
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                conus purpu
locusta mig
carassius a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sus sp. ins
carassius c
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 zea mays (m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lycopersico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oryctolagus
ovine respi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sarcom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                periplaneta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       andrena iso
                                                                                                                                                                                                                                                                                                                                                                                                                                                          kluyveromyc
fugu rubrip
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  carassius a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      periplaneta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oryza sativ
sinorhizobi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               streptococo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            andrena vul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                               bos taurus
                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                (without alignments)
99.112 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  homo
                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                       1, 2005, 11:12:11 ; Search time 46.5 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9p8e5
O42564
Q56140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P41489
Q8aum7
Q8ay15
Q61d23
P30089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q7x6a3
P93233
P82692
O02831
Q9try3
Q6ua69
Q16220
Q9umf3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q61ek1
Q71gu0
Q71h00
Q9s8j8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7m4r6
P58785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08qvd3
007624
P82618
Q61d86
P30093
          GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                       1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COW2_CONPU
LMT3_LOCMI
Q8AUM7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08AYL5
06LD23
UPA3 HUMAN
Q7X6A3
P93233
PPK2 PERAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPK3 PERAM
Q6LDS6
UPA7 HUMAN
Q6LEK1
                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                   protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  042564
Q56140
Q7M4R6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9TRY3
Q6UA69
Q16220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9UMF3
Q7M2R5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8QVD3
Q07624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q71GU0
Q71H00
Q9S8J8
Q712A6
Q35953
                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                         UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                               US-09-761-636A-14
52
                                                                                                                                    1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match Length
                    Copyright
                                                                                                                                                                                                                                length: 0
length: 9
```

Score

Result No.

sed sed

Minimum DB Maximum DB

Database

Perfect score:

Sequence:

OM protein -

. .

Scoring table:

Searched:

ö

Gaps

```
Constable A., Mollet B.; "Isolation of promoter regions from Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shiraishi Y.; "Western blotting analysis for malignant lymphoma and stomach cancer antigens from carcinogen-transformed bloom syndrome cells."; antigen 5.787(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
Neogastropoda; Conoidea; Conidae; Conus.
                                                                                                                                                                                                                                                                                                                              Score 19; DB 2; Length 8;
Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36.5%; Score 19; DB 2; Length 9; 60.0%; Pred. No. 1.6e+06;
                                                                    Bacteria; Firmicutes; Lactobacillales; Streptococcaceae,
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
STP6 protein (Fragment).
Name=STP6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                              8 AA; 846 MW; ED086772D5B045B6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 AA; 949 MW; 3D057042D7633737 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P30/03;
28-FEB-2003 (Rel. 41, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
                                                                                                                                                                                                                                                                                                                  36.5%; Scor.
100.0%; Pred. No. ...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Mismatches
                                                                                                                                                                                                                          thermophilus.";
FEMS Microbiol. Lett. 122:85-90(1994)
EMBL, X78210; CAA55045.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118K stomach cancer antigen (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                          MEDLINE=95047254; PubMed=7958782;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=90216080; PubMed=2323853;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Leu-contryphan-P.
Conus purpurascens (Purple cone)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.00
Best Local 4; Conservative
                                                   Streptococcus thermophilus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Int. J. Cancer 45:783
PIR; A60356; A60356.
NON_TER 1
NON_TER 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                        SEQUENCE FROM N.A. STRAIN=ST11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 VPLVP 8
                                                                                     Streptococcus.
NCBI_TaxID=1308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                  2 ISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 IPLKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COW2 CONPU
P58785;
                                                                                                                                                                                                                                                                              NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7M4R6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7M4R6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COW2 CONPU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q7M4R6
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OCC OCC DE LEGE
                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINES97442476; PubMed=9295353; DOI=10.1074/jbc.272.38.24008;
MEDLINES97442476; PubMed=9295353; DOI=10.1074/jbc.272.38.24008;
Plummer N.W., McBurney M.W., Meisler M.H.;
"Alternative splicing of the sodium channel SCN8A predicts a truncated two-domain protein in fetal brain and non-neuronal cells.";
J. Biol. Chem. 272.24008-24015(1997).
EMBL; U97673; AAB80916.1;
                                                                                                                                                                                        STRAIN=NRRL Y1140;
MEDLINE=99448382; PubMed=10518937; DOI=10.1016/S0014-5793(99)01105-9;
Lamase Macchines M., Esperanza Cerdan E., Freire-Picos M.A.;
Lamase Macchines and Cardin HS4 transcriptional regulation: similarities and differences to Saccharomyces cerevisiae HIS4 gene.";
FEBS Lett. 458:72-76(1999).
FEBS. PALS 494; CAB87125.1; -.
9 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fugur Lubripes (Japanese pufferfish) (Takifugu rubripes).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Actinopterygii, Neopterygii, Teleostei, Buteleostei, Neoteleostei,
Acanthomorpha, Acanthopterygii, Percomorpha, Tetraodontiformes;
Tetradontoides, Tetraodontidae, Takifugu.
                                                                                  Kluyveromyces lactis (Yeast).
Bukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Truncated voltage-gated sodium channel alpha subunit (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                    ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 19; DB 2; Length /;
Pred. No. 1.66+06;
                                                                                                                                                                                                                                                                                                                                                                  Length 9;
                                                                                                                  Saccharomycetales; Saccharomycetaceae; Kluyveromyces
(TrEMBLrel. 15, Created)
(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 16, Last annotation update)
                                                                                                                                                                                                                                                                                                                              9 AA; 1015 MW; 5770D2D772D2D767 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 1 7 AA; 730 MW; 75B72EA2C73772A0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                38.5%; Score 20; DB 2; I
60.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.5%; Scor.
100.0%; Pred. No. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GO:0005216; F:ion channel activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ā
                                                                                                                                                                                                                                                                                                                                                                                                  2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TrEMBLrel. 01, (TrEMBLrel. 01,
                                                                                                                                                                                                                                                                                                                                                                                                    3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                   HIS4 protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        :|:||
LPVVP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                      4 VPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 VPLV 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O56140
O56140;
01-NOV-1996 (
01-OCT-2000 (
01-OCT-2000 (
01-MAR-2001 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JAN-1998
                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           042564
```

Gaps

..

Best Loc Matches

ò 셤

; 0

Gaps

0

Best Loc Matches

RESULT 4

d

OS6140 ID OS AC OS DT 01

SEQUENCE,

OX REPRESENT THE PROPERTY OF T

Query Match

Matches

ઠ 셤

```
MEDLINE=21602444; PubMed=11738553; DOI=10.1016/S0960-0760(01)00120-0; Tchboudakova A., Kishida M., Wood B., Callard G.V.; "Promoter characteristics of two cypl9 genes differentially expressed in the brain and ovary of teleost fish.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tchoudakova A., Kishida M., Wood E., Callard G.V.;
"Promoter characteristies of two cypl9 genes differentially expressed
in the brain and ovary of teleost fish.";
J. Steroid Biochem. Mol. Biol. 78:427-439 (2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=21602444; PubMed=11738553; DOI=10.1016/S0960-0760(01)00120-0;
                                                                                                             Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Carassius.
NCBI_TaxID=7957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Carassius.
NCBI_TaxID=7957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          h 34.6%; Score 18; DB 2; Length 9; Similarity 75.0%; Pred. No. 1.6e+06; 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tchoudakova A.V., Kishida M., Wood E., Callard G.V.;
Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF324897; AAN32618.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 9;
                                                                                                                                                                                                                                                                                                                                                          Tchoudakova A.V., Kishida M., Wood E., Callard G.V.;
Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF124895; AAN12616.1;
EMBL; AF134896; AAN12617.1;
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
05-UUL-2004 (TrEMBLrel. 27, Last annotation update)
05-UCL-2004 (TremBLrel. 27, Last annotation update)
Name=CYP199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-WAR-2003 (TrEMBLrel. 23, Created)
01-WAR-2003 (TrEMBLrel. 23, Last sequence update)
01-WAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE 9 AA; 1060 MW; C49E76D7272B040D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE 9 AA; 961 MW; C49E76D7272B187D CRC64;
                                                                                                                                                                                                                                                                                                     Steroid Biochem. Mol. Biol. 78:427-439(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34.6%; Score 18; DB 2; I
75.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytochrome P450 aromatase (Fragment)
Name=CYP19a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carassius auratus (Goldfish).
                                                                                              Carassius auratus (Goldfish)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 LVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 LVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                       TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8AYL5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
Q8AYL5
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Isolation, identification and synthesis of locustamyotropin III and IV, two additional neuropeptides of Locusta migratoria: members of the locustamyotropin peptide family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Insect Biochem. Mol. Biol. 22:447-452(1992).
-!- FUNCTION: Potent mediator of visceral muscle contractile activity (myotropic activity).
-!- SIMILARITY: Belongs to the pyrokinin family.
                                                        STRAIN=Clipperton Island; TISSUE=Venom;
MEDLINE=99388833; PubMed=10461743;
Jacobsen R.B., Jimenez E.C., De la Cruz R.G.C., Gray W.R., Cruz L.J.,
Olivera B.M.;
                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                             Schoofs L., Holman G.M., Hayes T.K., Nachman R.J., Kochansky J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Locustamyotropin 3 (LOM-MT-3).
Locusta migratoria (Migratory locust).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
Acridoidea; Acrididae; Oedipodinae; Locusta.
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR, A61620; A61620.
InterPro, IPR001484; Pyrokinin.
PROSITE; PS00539; PYROKININ; 1.
Amidation; Direct protein sequencing; Neuropeptide; Pyrokinin.
MOD RES 9 Leucine amide.
SEQÜENCE 9 AA; 1140 MW; D5AE1772C9D776C6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 18; DB 1; Length 9;
Pred. No. 1.6e+06;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                            34.6%; Score 18; DB 1; Length 8; 40.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                     MOD RES 4 4 D-leucine.
SEQÜENCE 8 AA; 890 MW; 75A367672732CEB8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                 2; Mismatches
                                       SYNTHESIS, AND MASS SPECTROMETRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34.6%;
                                                                                                                                                                                                                                                                                                                                                                                                 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 75.0
nes 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE, AND SYNTHESIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
   NCBI_TaxID=41690;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            |::|
CVLLP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 PLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 PFVP 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          de Loof A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCMI
```

ö

Gaps

ô

ö

Gaps

; 0

Query Match

Best Loc Matches

ઠે 셤 Q8AUM7 Q8AUM7;

RESULT 8 Q8AUM7 ID Q8 AC Q8

Q6LD23

RESULT 10

line."

Matches

ò 셤 DDT ACCOUNT OF THE BEAR OF THE

```
Plant Mol. Biol. 34:275-286(1997).

EMBL, U76592; ARC49682-1; -.
GGO; GO:0016847; F:1-aminocylopropane-1-carboxylate synthase . . .; IEA.
GO; GO:0016829; F:1yase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lycopersicon esculentum (Tomato).

Bukaryota; Viridiplantue, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicoryledons; core eudicots; asterids;
lamiids; Solanales; Solanaceae; Solanum.
                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
Wilson L.M., Whitt S.R., Ibanez A.M., Rocheford T.R., Goodman M.M.,
Buckler E.S. IV.,
Buckler E.S. IV.,
Submitted (MAX-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AX290305; AAP45331.1; -.
EMBL; AX290311; AAP45337.1; -.
EMBL; AX290305 AAP45337.1; -.
EMBL; AX290305 AAP45377.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE-97351561; PubMed-9207843; DOI=10.1023/A:1005800511372;
MEDLINE-97351561; PubMed-9207843; DOI=10.1023/A:1005800511372;

"Detker J.H., Olson D.C., Shiu O.Y., Yang S.F.;

"Differential induction of seven 1-aminocyclopropane-1-carboxylate synthase genes by elicitor in suspension cultures of tomato (Lycopersicon esculentum).";
                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
PACCAD clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30.8%; Score 16; DB 2; Length 7;
80.0%; Pred. No. 1.6e+06;
Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32.7%; Score 17; DB 2; Length 9; 66.7%; Pred. No. 1.6e+06; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
1-aminocyclopropane-1-carboxylate synthase (EC 4.4.1.14)
                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NÓN TER 1 1 SEQUENCE 7 AA; 828 MW; 71B412C7377415D0 CRC64;
                                                                                          9 AA.
                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-1997 (TrEMBLrel. 03, Created)
                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                            (TrEMBLrel. 25, C
(TrEMBLrel. 25, I
(TrEMBLrel. 27, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 66.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                          PRELIMINARY;
                                                                                                                          01-OCT-2003 (TrEMBLrel.
01-OCT-2003 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
                                                                                                                                                                                         Isoamylase (Fragment).
Name=sul;
                                                                                                                                                                                                                           Zea mays (Maize).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 SVPLV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SRPLV 5
                                                                                                                                                                                                                                                                                                    NCBI_TaxID=4577;
PLFP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 VPC 9
                                                                                                              Q7X6A3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P93233
                                                                                            Q7X6A3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lyase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
P93233
                                                       RESULT 12
                                                                           Q7X6A3
                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDINE=55047447; PubMed=7958966; DOI=10.1016/0378-1119(94)90710-2; Lutfalla G., U2c G.; Lutfalla G., U2c G.; Structure of the murine interferon alpha/beta receptor-encoding gene: "Structure of the marrangements in the interferon-resistant L1210 cell high-frequency rearrangements in the interferon-resistant L1210 cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Plagma protein map: an update by microsequencing.";
Electrophoresis 13:707-714(1992).
-!- MISCELIANBOUS: On the 2D-gel the determined pI of this unknown protein is: 4.6, its MM is: 46 kDa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-APR-1993 (Rel. 25, Created)
01-APR-1993 (Rel. 25, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Homo sapiens (Human)
Eukaryota; Mecazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=93092937; PubMed=1459097;
Hughes G.J., Frutiger S., Paquet N., Ravier F., Pasquali (
Sanchez J.-C., James R., Tissot J.-D., Bjellqvist B.,
Hochstrasser D.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 17; DB 1; Length 9; Pred. No. 1.6e+06; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 AA; 1056 MW; 26F2B1BAF769C737 CRC64;
                                                                         05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 1
8 8
8 Aa; 999 MW; C5BBS9D76059D76A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32.7%; Score 17; DB 2; I
50.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                   Gene 148:343-346(1994).
EMBL: U06237; AAA65003.1; ...
GO; GO: 00016021; C:extracellular space; TAS.
GO; GO: 0016021; C:integral to membrane; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Mismatches
                                                                                                                                  Interferon alpha/beta receptor (Fragment)
                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32.7%;
Best Local Similarity 75.0%;
Matches 3; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct protein sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Conservative
                                         PRELIMINARY;
                                                                                                                                                                         Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                             NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | :|
2 PFIP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 PLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [1]
SEQUENCE.
TISSUE=Plasma;
                                                                             05-JUL-2004
05-JUL-2004
                                                                                                                                                          Name=IFNAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Receptor.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON TER
```

ö

Gaps

ö

ô

Gaps

; 0

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the American cockroach.";
J. Comp. Neurol. 419:352-363(2000).
-!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vuorio E.;
"Evidence for insufficient chondrocytic differentiation during repair of full-thickness defects of articular cartilage.";
Matrix Biol. 15:39-47(1996).
EMBL; S83371; AAD14433.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Corpora cardiaca;
MEDLINE=97353923; PubMed=2210163; DOI=10.1016/S0196-9781(97)00067-3;
Predel R., Kellner R., Kaufmann R., Penzlin H., Gaede G.;
"Isolation and structural elucidation of two pyrokinins from the retrocerebral complex of the American cockroach.";
Peptides 18:473-478(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE SPECIFICITY.
MEDLINE=20189894; PubMed=10723010;
Predel R., Eckert M.;
"Tagma-specific distribution of FXPRLamides in the nervous system of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE=96377339; PubMed=8783186; DOI=10.1016/S0945-053X(96)90125-0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              activity).
--- TISSUE SPECIFICITY: Corpora cardiaca.
--- MASS SPECTROMETRY: WW-883; METHOD=MALDI; RANGE=1-8; NOTE=Ref.1.
--- SIMILARIEY: Belongs to the pyrokinin family.
InterPro; IPR001484; Pyrokinin.
PROSITE; PS00539; PYROKININ; FALSE NEG.
Amidation; Direct protein sequencing; Neuropeptide; Pyrokinin.
--- Amidation; Direct protein sequencing; Neuropeptide; Pyrokinin.
--- Amidation; Direct protein sequencing; Neuropeptide; Pyrokinin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Pro alpha 1 type III collagen protein (Fragment).
Name=pro alpha 1 type III collagen;
Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Metsaranta M., Kujala U.M., Pelliniemi L., Osterman H., Aho H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                       Periplaneta americana (American cockroach).
Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Orthopteroidea, Dictyoptera, Blattaria, Blattoidea,
Blattidae, Periplaneta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30.8%; Score 16; DB 1; Length 8; 50.0%; Pred. No. 1.6e+06;
                                                                                              Last sequence update)
Last annotation update)
      8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
                                                          (Rel. 40, Created)
(Rel. 40, Last sequence (Rel. 44, Last annotation (Pea-PK-2) (FXPRL-amide)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3; Conservative
   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 SVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 SPPFAP 6
                                                                 16-OCT-2001
                                                                                                                               05-JUL-2004
                                                                                                                                                            Pyrokinin-2
                                                                                              16-OCT-2001
PPK2 PERAM P82692;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  002831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
002831
AC 002833
AC 002833
AC 00283
DT 01-JU
DT
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
FT NON TER 8 8 8

SQ SEQUENCE 8 AA; 1028 MW; B8S9C7272EA77371 CRC64;

Query Match
Best Local Similarity 100.0%; Pred. No. 1.6e+06;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 8 PC 9

Db 3 PC 4

Search completed: April 1, 2005, 11:23:57

Job time: 47.5 secs
```

THIS PAGE BLANK (USPTO)

Endotheli Human CD3 Hepatitis Sequence HIV A03 m

Human nov

Aay84999 Adc44308 Adc44308 Adc44308 Aay03909 Aay034653 Aau94456 Adc54488 Adc54448 Adc53232 Add12324 Adi2322 Adk06442 Adk5920 Aby99702 Adk5920 Aby99702 Adk5920 Aby99702 Adk5920 Aby99702 Adk5920 Aby999702 Adk5920 Aby999702

IGF-1 mut Amino aci

Endotheli

Endotheli GST bindi Human BCY Human BCY Hepatitis Human CD3 Rodent IL

Human sec

ı

OM protein

ö

Sequence:

Minimum DB Maximum DB

Database

Result No.

Searched:

```
Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VBGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabet a carbon separation distances on opposite antiparallel strands of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neovascularisation, lymphangiogenesis, psoriasis, tumour, diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy, chronic inflammation, cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cendron
                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                    AAY84999
ADC44308
ADC44308
ADN28228
AAY03909
AAP10498
AAP104468
AAU94456
AAU9456
AAU12324
AD112324
AD112324
AD112324
AD12325
ADN28290
ADN28290
ADN28290
ADN28290
ADN28290
ADN28290
ADN28290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF based monocyclic peptide 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU04533 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JAN-2001; 2001WO-US001533
    828788844557788888879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .9
/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-442248/47.
Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUL-2001
Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
  Human LYI
Human BCY
Human BCY
Human BCY
Human BCY
Human BCY
Human BCY
Amino aci
Endotheli
Protocadh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Selective
Pancreati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modified
Human MHC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Endostati
Hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lau04533 VEGF base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pancreati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Desmocol1
                                                                                                                                ; Search time 58.5 Seconds
(without alignments)
59.502 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Abrs6920
Adm35430
Adm35441
Adm35451
Adm35451
Adm35431
Adm35434
Adm35397
Adi12322
Adi12332
Adi12332
Adi12332
Adi12334
Adi1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Abg35134
Abb46931
Abg60522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Abg35050 | Adk07023 |
                                                                                                                                                                                                                                                                                                                                                                                            330156
                  GenCore version 5.1,6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                    2105692 segs, 386760381 residues
                                                                                               protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB46931
ABG60522
ABR56920
ADM35404
ADM35430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADM35441
ADM35456
ADM35435
ADM35435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM35434
ADM35397
ADM35397
ADI12322
ADI123363
ADI123363
ADI123336
ADI123336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAM24655
ABG35050
ADK07023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4AY63242
                                                                                                                                  2005, 11:11:16
                                                                                                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            geneseqn1990s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2002s:*
geneseqp2003bs:*
geneseqp2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Geneseg 16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqp1980s:*
                                                                                                                                                                                                           US-09-761-636A-14
52 .
1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                      Copyright
                                                                                                                                    1,
                                                                                                                                                                                                                                                                                                                                                                                                                               seq length: 0 seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0000

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

0110

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.
                                                                                                                                                                                                                                  Perfect score:
                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
```

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, neovascularisation or lymphanglogenesis in a mammal with a condition characterised by anglogenesis, neovascularisation or lymphanglogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangloma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angloplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related anglogenic dysfunction, diabetes induced neovascular sequelae, or chronic liver, the continuation and the liver and the liv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VBGF. Or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diabetic retinopathy
                                   %$GGGGGGGGGGGGGGGGGGGG
```

Sequence 9 AA;

```
100.0%; Score 52; DB 4; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
Query Match
Best Local Similarity 1000
9, Conservative
                                                                                                 σ
                                                                     1 CISVPLVPC 9
                                                                                                 CISVPLVPC
```

ö

Gaps .; 0

> ABG35134 standard; peptide; 9 AA. 15-JUL-2002 (first entry)

Pancreatic islet targeting peptide #10

Targeting peptide; cancer; Hodgkin's disease; cytostatic; immunosuppressive; anti-inflammatory; antiarthritic; antiviral; antiatherosclerotic; antidiabetic; antibacterial; diabetes mellitus; inflammatory disease; arthritis; atherosclerosis; cancer; autoimmune disease; bacterial infection; viral infection

Unidentified.

WO200220722-A2.

14-MAR-2002.

07-SEP-2001; 2001WO-US027702

08-SEP-2000; 2000US-0231266P. 17-JAN-2001; 2001US-00765101.

(TEXA) UNIV TEXAS SYSTEM

Pasqualini R; Arap W, WPI; 2002-383050/41.

Identifying targeting peptides useful for treating e.g. diabetes mellitus, inflammatory diseases, cancer, or autoimmune diseases, comprises exposing a sample to a phage display library and recovering phage bound to the sample.

Claim 56; Page 288; 298pp; English.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to modulating agents for inhibiting or enhancing desmosomal cadherin mediated cell adhesion, comprising a modulating agent comprising a desmosomal cadherin cell adhesion recognition CAR sequence (ABB45341-ABB47262), a non-peptide mimetic of a desmosomal cadherin CAR sequence, a substance such as an antibody or antigen-binding fragment that specifically binds a desmosomal cadherin CAR sequence and/or a polymucleotide encoding a polympetide that comprises a desmosomal cadherin CAR sequence or analogue. The modulating agents have
                                                                                                                                                                        targeting peptides and one or more receptors for a targeting peptide. The targeting peptides are used for selective delivery of therapeutic agents, including gene therapy vectors and fusion proteins, to specific organs, tissues, or cell types in subject. The targeting peptide may also be used for treating diseases such as diabetes mellitus, inflammatory diseases, arthritis, atherosclerosis, cancer, autoimmune diseases, bacterial and viral infections and Hodskin's disease. The present sequence represents a
          This invention relates to a novel method for identifying disease targeting peptides. The method comprises exposing a sample from an organ, tissue or cell type of interest, to a phage display library and recovering phage bound to the sample (the phage expresses targeting peptides). The peptides identified by the method of the invention may have cytostatic, immunosuppressive, anti-inflammatory, antiathritic, antiatherosclerotic, antidiabetic, antibacterial and antiviral activities. The methods and composition are useful for identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desmosomal cadherin; cell adhesion; CAR sequence; immunosuppressive; cytostatic; antiapoptotic; wound healing; reduce scar tissue; skin graft; organ implant; autoimmune blistering disorder; cancer; apoptosis; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modulating agents for inhibiting or enhancing desmosomal cadherin mediated cell adhesion, useful for facilitating wound healing and/or reducing scar tissue, treating cancer and inducing apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                             Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                             Score 27; DB 5;
Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Desmocollin-2 CAR cyclic peptide 13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gour BJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 23; Page 111; 127pp; English.
                                                                                                                                                                                                                                                                                                                            targeting peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB46931 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-MAR-2001; 2001WO-IB001400.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-MAR-2000; 2000US-00535852.
                                                                                                                                                                                                                                                                                                                                                                                                             51.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blaschuk OW, Symonds JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 55.6
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-025778/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | : | | | CMSSPGVAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200172956-A2.
                                                                                                                                                                                                                                                                                                                                                                       Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABB46931;
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABB4693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

Gaps

.. 0

Score 27; DB 5; Length y;
Pred, No. 1.8e+06;

51.9%; 55.6%;

Conservative

Query Match Best Local Similarity Matches 5; Conserv

9 σ

1 CISVPLVPC CMSSPGVAC

셤

8

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in size useful for targeting delivery to an organ or tissue, particularly for treating a disease, e.g. cancer, arthritis, diabetes, inflammatory disease, atherosclerosis, autoimmune disease, bacterial infection, viral infection, cardiovascular disease or degenerative disease. The peptide is also useful for inducing apoptosis, particularly to a subject with inflammation or macular degeneration. Furthermore, the peptide is useful for diagnosing the diseases cited above. Targeting peptide is useful invention can also be used to deliver an agent to a focusing bactaching a peptide to the agent and administering the peptide to a pregnant subject. Sequences ABG60326-ABG60574 represent selective targeting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Targeting peptide, cancer; arthritis, diabetes; inflammatory disease; atherosclerosis; autoimmune disease; bacterial infection; apoptosis; viral infection; cardiovascular disease, degenerative disease; ischaemia; inflammation; macular degeneration; antiinflammatory; antidiabetic; cardiovascular; immunomodulator; antibacterial; antiviral; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Targeting peptides identified by phage display, useful for targeting delivery to an organ or tissue, particularly for treating a disease, e.g. cancer, inflammatory or autoimmune diseases, infections or cardiovascular
          ţ
immunosuppressive, cytostatic and antiapoptotic activity and are used to facilitate wound healing and/or reduce scar tissue, for enhancing adhesion of foreign tissue implants (e.g. skin graft or organ implant), treating an autoimmune blistering disorder and to treat cancer (e.g. carcinoma, leukaemia or melanoma) and induce apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to an isolated peptide of 100 amino acids or less
                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                    ..
                                                                                                                                                                                                                                                                                                                                                    4; Indels
                                                                                                                                                                                                                                                                                 Length 9;
                                                                                                                                                                                                                                                                             Score 27; DB 5; I
Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 22; Page 121; 317pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG60522 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Selective targeting peptide #197.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-SEP-2000; 2000US-0231266P.
17-JAN-2001; 2001US-00765101.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-SEP-2001; 2001WO-US027692
                                                                                                                                                                                                                                                                                 51.9%;
                                                                                                                                                                                                                                                                                                             44.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JUL-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TEXA ) UNIV TEXAS SYSTEM.
                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pasqualini R;
                                                                                                                                                                                                                                                                                                                                                                                                                    φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-415731/44.
                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CIAFATTPC
                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200220769-A1.
                                                                                                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Arap W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABGGOS22 ABGGOS2 ABGGOS2 ABGGOS2 ABGGOS2 ABGGOS ABGGOS
   88888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

Targeting peptide; obesity; lipodystropathy; anorectic; antilipaemic; peptide therapy; gene therapy; infection; human immunodeficiency virus; HV; placental delivery; teraegomic; placenta; adipose; pancreatic; beta-3 integrin; beta-5 integrin; spleen; aminopeptidase A.

Mus musculus.

Pancreatic targeting peptide SEQ ID NO:137.

(first entry)

30-JUL-2003

ABR56920;

ABR56920 standard; peptide; 9 AA.

```
Lipodystropathy, which comprises: (a) obtaining a targeting peptide calipodystropathy, which comprises: (a) obtaining a targeting peptide callpodystropathy, which comprises: (b) attaching the peptide to a therapeutic agent to form a complex; (c) administering the peptide to a subject; and (d) inducing weight loss in the subject or treating lipodystropathy. The adipose targeting peptides have anorectic and antilipaemic activities, and can be used in peptide and gene therapy. The method is used for treating obesity or a lipodystropathy that is related to infection with human immunodeficiency virus (HIV). The peptides used in the method can calso be used for targeting delivery to an organ or tissue, such as consent compounds for teratogenic activity. ABR56806 to is used to screen compounds for teratogenic activity. ABR56806 to ABR56827 and ACC79106 to ACC79111 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Treating obesity or a lipodystropathy comprises obtaining a targeting peptide selective for adipose tissue, attaching the peptide to a therapeutic agent to form a complex, and administering the complex to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          51.9%; Score 27; DB 6; Length 9; 55.6%; Pred. No. 1.8e+06; ive 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 9; Page 114; 247pp; English
                                                                                                                                                                                                                                                                                                                                                                                                       Pasqualini R, Arap W, Kolonin MG;
                                                                                                                                                                                                                                                                                                     30-AUG-2002; 2002WO-US027836.
                                                                                                                                                                                                                                                                                                                                      07-SEP-2001; 2001WO-US027692
                                                                                                                                                                                                                                                                                                                                                                  (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-371749/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CMSSPGVAC
                                                                                                                                                                                                                                     WO2003022991-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                                                                    20-MAR-2003.
                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bubject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

peptides of the invention

Sequence 9 AA;

Human LY1448P cancer related peptide for cancer detection method.

cytostatic; T-cell vaccine; detection; cancer;

chronic lymphocytic leukemia.

```
The invention relates to a method of detecting (M1) cancer in a patient by: (i) contacting a biological sample from the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent; and (iii) comparing the amount of polypeptide present in the patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to M1, except that the detection agent is an oligonucleotide that binds to any of three polynucleotides given in the specification. M1 and M2 are useful for detection agent is man oligonucleotide that binds are useful for detection agent in the specification. M1 and M2 are useful for detecting the presence of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined cutoff value.
                                                                                                                             Human LY1448P cancer related peptide for cancer detection method.
                                                                                                                                                               cytostatic; T-cell vaccine; detection; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID NO 11228; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mannion J,
                    ADM35404 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                            06-NOV-2002; 2002WO-US035728.
                                                                                                                                                                                                                                                                                                                                                              06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                                                                                                 chronic lymphocytic leukemia
                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                                                                                                                                                                    (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                       WO2003077836-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                       Homo sapiens
                                                                                           03-JUN-2004
                                                                                                                                                                                                                                                                                          25-SEP-2003
                                                        ADM35404;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide
ADM35404
```

```
|:|||:
CLSVPV 9
                                                                                                        CISVPL 6
Sequence 9 AA;
                                                                                                                                                                                                                                                                                                     03-JUN-2004
                                 Query Match
Best Local S
                                                                                                                                                                                                                                                                      ADM35441;
                                                                                                        ч
                                                                    Matches
                                                                                                                                                                                               RESULT 8
                                                                                                                                                                                                                  ADM35441
                                                                                                        ò
                                                                                                                                       셤
                                                                                                                                                                                                                                                   ö
                                                                                       in a patient, especially chronic lymphocytic leukemia. The applicants have identified specific human polypeptides overexpressed in one or more types of hematological malignancies. This sequence corresponds to a
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                51.9%; Score 27; DB 7; Length 9; 66.7%; Pred. No. 1.8e+06; Live 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                 ADM35430 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                     4; Conservative
                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                        CISVPL 6
                                                                                                                                                                                                                                                                                                             |:|||:
CLSVPV
```

03-JUN-2004 (first entry)

ADM35430

RESULT 7
ADM35430
ID ADM3
XX
AC ADM3
XX
AC ADM3
XX
XX

-

ઠે g

Matches

```
The invention relates to a method of detecting (M1) cancer in a patient by: (i) contacting a biological sample from the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent; and (iii) comparing the amount of polypeptide present in the patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to M1, except that the detection agent is an exclosional configuration that binds to any of three polynucleotides given in the specification. M1 and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants in a patient, especially chronic lymphocytic leukemia. The applicants types of hematological malignancies. This sequence corresponds to a peptide used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                     Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human LY1448P cancer related peptide for cancer detection method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 27; DB 7; Length 9;
Pred. No. 1.8e+06;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cytostatic; T-cell vaccine; detection; cancer;
                                                                                                                                                                                                                                                                                                       Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 11254; 419pp; English.
                                                                                                                                                                                                                                                                                                       Mannion J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADM35441 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chronic lymphocytic leukemia.
                                                                                                                                                                                      06-NOV-2002; 2002WO-US035728.
                                                                                                                                                                                                                      06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51.9%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 66.7
4; Conservative
                                                                                                                                                                                                                                                                                                       Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                       WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                     (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003077836-A2.
                                                                                                                  WO2003077836-A2
                                                                                                                                                                                                                                                                                                                                                                                                                             cutoff value.
                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-SEP-2003.
                                                                                                                                                      25-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BXXXXXXXXXXXXXXXXX
```

```
by: (i) contexting a biological sample from the patient with an apartituthat binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent; and (iii) comparing the amount of polypeptide present in the patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to M1, except that the detection agent is an oligonucleotide that binds to any of three polymucleotides given in the specification. M1 and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants have identified specific human polypeptides overexpressed in one or more types of hematological malignancies. This sequence corresponds to a
                                                                                                                                                                                       Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined
                                                                                                                                                                                                                                                                                                  The invention relates to a method of detecting (MI) cancer in a patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human LY1448P cancer related peptide for cancer detection method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 27; DB 7; I
Pred. No. 1.8e+06;
2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; T-cell vaccine; detection; cancer;
                                                                                                                              Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Retter M;
                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 11265; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mannion J,
                                                                                                                            Mannion J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM35456 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51.9%;
66.7%;
                                             06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chronic lymphocytic leukemia.
                  06-NOV-2002; 2002WO-US035728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-NOV-2002; 2002WO-US035728.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JUN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
                                                                                                                            Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaiger A, Algate PA,
                                                                                             (CORI-) CORIXA CORP
                                                                                                                                                          WPI; 2003-756941/71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |:|||:
4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2003077836-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM35456;
                                                                                                                                                                                                                                       cutoff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
The invention relates to a method of detecting (M1) cancer in a patient that binds to any of three polypeptides given the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent; and (iii) comparing the amount of polypeptide present in the patient, and (iii) comparing the amount of polypeptide present in the patient, as sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to M1, except that the detection agent is an oligonucleotide that binds to any of three polymucleotides given in the specification. M1 and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants in a patient specific human polypeptides overexpressed in one or more types of hematological malignancies. This sequence corresponds to a peptide used in the method of the invention.
                               Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined cutoff value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human LY1448P cancer related peptide for cancer detection method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51.9%; Score 27; DB 7; Length 9; 66.7%; Pred. No. 1.8e+06; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; T-cell vaccine; detection; cancer;
                                                                                                                                  Disclosure; SEQ ID NO 11280; 419pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mannion J, Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; SEQ ID NO 11259; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADM35435 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chronic lymphocytic leukemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36-NOV-2002; 2002WO-US035728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaiger A, Algate PA,
WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |:|||:
CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003077836-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cutoff value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-SEP-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADM35435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADM35435
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

Gaps

;

0; Indels Length 9;

The invention relates to a method of detecting (M1) cancer in a patient

more

have identified specific human polypeptides overexpressed in one or types of hematological malignancies. This sequence corresponds to a peptide used in the method of the invention.

ö

Gaps

ö

0; Indels Length 9;

Score 27; DB 7; 1 Pred. No. 1.8e+06;

51.9%;

Query Match Best Local Similarity

Sequence 9 AA;

888888

2; Mismatches

4; Conservative

Matches

1 CISVPL 6 |:|||: 4 CLSVPV 9

ઠ g

ö

Gaps

ö

```
by: (i) contacting a biological sample from the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent; and (iii) comparing the amount of polypeptide present in the patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to M1, except that the detection agent is an oligomucleotide that binds to any of three polymucleotides given in the specification. M1 and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants have identified specific human polypeptides overexpressed in one or more types of hematological malignancies. This sequence corresponds to a peptide used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined cutoff value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human LY1448P cancer related peptide for cancer detection method.
                                                                                                                                                                                                                                                                  51.9%; Score 27; DB 7; Length 9; 66.7%; Pred. No. 1.8e+06; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cytostatic, T-cell vaccine, detection, cancer, chronic lymphocytic leukemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mannion J, Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure, SEQ ID NO 11275; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                ADM35451 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-NOV-2002; 2002WO-US035728.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-0015484.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-756941/71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                      |:|||:
4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                    1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003077836-A2
                                                                                                                                                                                                                                     Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-SEP-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM35451;
                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
ADM35451
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8×99999999999888
                                                                                                                                                                                                                                                                                                                                      ò
```

```
The invention relates to a method of detecting (MI) cancer in a patient by: (1) contacting a biological sample from the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent, and (iii) comparing the amount of polypeptide present in the patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a companient of MI, except that the detection agent is an oligonucleotide that binds to any of three polymucleotides given in the specification. MI and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants in a patient general contact of the properties of hematological malignancies. This sequence corresponds to a types of themathod of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined cutoff value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                             Human LY1448P cancer related peptide for cancer detection method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 27; DB 7; Length 9;
Pred. No. 1.8e+06;
2; Mismatches 0; Indels
                                                                                                                                                         cytostatic; T-cell vaccine; detection; cancer; chronic lymphocytic leukemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mannion J, Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; SEQ ID NO 11258; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51.9%; Scc...
66.7%; Pred
2; }
                              ADM35434 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                        06-NOV-2002; 2002WO-US035728.
                                                                                                                                                                                                                                                                                                                                                       06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
nes 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                             (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                     WO2003077836-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                        25-SEP-2003.
                                                                                                  03-JUN-2004
                                                                  ADM35434;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
RESULT 12
                ADM35434
```

ö

The invention relates to a method of detecting (MI) cancer in a patient by: (1) contacting a biological sample from the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binds agent; and (iii) comparing the amount of polypeptide present in the patient; and (iii) comparing the amount of polypeptide present in the discloses a separate method for detecting (M2) cancer in a patient by a method similar to MI, except that the detection agent is an oligonucleotide that binds to any of three polynucleotides given in the specification. MI and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants

```
WO2003077836-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 9 AA;
                          03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-MAY-2004
                                                                                                                                                                                                                                                                                 25-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADI12322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a method of detecting (M1) cancer in a patient by: (1) contacting a biological sample from the patient with an agent that binds to any of three polypoptides given in the specification; (1) detecting in a sample an amount of the peptide that binds to the binding agent; and (11) comparing the amount of polypoptide present in the input of patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to M1, except that the detection agent is an except and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants in a patient, especially chronic lymphocytic leukemia. The applicants that the method of the invention. This sequence corresponds to a pertide used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined cutoff value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                    Human LY1448P cancer related peptide for cancer detection method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 27; DB 7; I
Pred. No. 1.8e+06;
2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                  cytostatic; T-cell vaccine; detection; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 11250; 419pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mannion J,
                                                                                                                                                             ADM35426 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                            chronic lymphocytic leukemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51.9%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-NOV-2002; 2002WO-US035728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                                                                                                                                                                      03-JUN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                          |:|||:
CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CISVPL 6
CISVPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLSVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003077836-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-SEP-2003
                                                                                                                                                                                                          ADM35426;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                               RESULT 13
ADM35426
ID ADM35426
ID ADM35426
XX AC ADM35
XX DE CHOOL OF CHOOL
                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
```

```
The invention relates to a method of detecting (MI) cancer in a patient by: (i) contacting a biological sample from the patient with an agent that binds to any of three polypeptides given in the specification; (ii) detecting in a sample an amount of the peptide that binds to the binding agent; and (iii) comparing the amount of polypeptide present in the patient's sample to a predetermined cutoff value. The specification also discloses a separate method for detecting (M2) cancer in a patient by a method similar to MI, except that the detection agent is an oligonuclectide that binds to any of three polynuclectides given in the specification. MI and M2 are useful for detecting the presence of cancer in a patient, especially chronic lymphocytic leukemia. The applicants in a patient dentified specific human polypeptides overexpressed in one or more types of hematological malignancies. This sequence corresponds to a peptide used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting cancer in a patient comprises contacting a biological sample from the patient with a binding agent that binds to a cancer-associated polypeptide and comparing the amount of polypeptide to a predetermined cutoff value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             caucer; brA4; BCY1; immunisation; tumour antigen; cytostatic; vaccine; gene therapy; immunotherapeutic; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
Human LY1448P cancer related peptide for cancer detection method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51.9%; Score 27; DB 7; Length 9; larity 66.7%; Pred. No. 1.8e+06; Conservative 2; Mismatches 0; Indels
                                                            cytostatic; T-cell vaccine; detection; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Retter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 11221; 419pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mannion J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADI12322 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human BCY1 immunogenic peptide.
                                                                                                chronic lymphocytic leukemia.
                                                                                                                                                                                                                                                                                                                                                                                                   06-NOV-2001; 2001US-00040862.
23-MAY-2002; 2002US-00154884.
                                                                                                                                                                                                                                                                                                                                         06-NOV-2002; 2002WO-US035728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaiger A, Algate PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-756941/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
es 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 CLSVPV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
```

ADM35397 standard; peptide; 9 AA.

RESULT 14 ADM35397
ID ADM3
XX
AC ADM3

ADM35397

```
The present invention describes an expression vector comprising a nucleotide sequence of 3847 (S1) or 1203 (S3) base pairs (bp), see SEQ ID NO:1 (ADI1211) or SEQ ID NO:3 (ADI1211), or its fragment. Also described: (1) a composition comprising the expression vector in a plarmaceutical carrier; (2) a method for preventing or treating cancer, comprising administering to a host the expression vector described above; (3) peptides derived from BFA4 or BCY1 as listed in the specification, and (4) methods for immunising a host against the tumour antigen BFA4 or BCY1, comprising administering to the patient the peptides described above, either alone or in combination with another agent, where the individual components of the combination are administered similtaneously or separately from one another. The compositions and peptides have cytostatic activities, and can be used in vaccines and in gene therapy. The composition and methods are useful for preventing or treating cancer. In particular, the vector is used for the insertion and expression of foreign genes encoding tumour antigens for use in the immunotherapeutic treatment of cancer. The present sequence represents a human BCY1 invention. The human BFA4 gene is located on chromosome 8.
                                                                                                                                                                                                                                                                                                                                                                                                                  New expression vector useful for preventing and/or treating cancer or for the insertion and expression of foreign genes encoding tumor antigens for use in the immunotherapeutic treatment of cancer.
                                                                                                                                                                                                                                                                                                        Berinstein N, Lovitt C, Parrington M, Pedyczak A, Radvanyi L;
Gallichan S, Singh-Sandhu D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 38; Page 44; 58pp; English
                                                                                                                                                     03-JUL-2002; 2002US-0394346P.
09-JUL-2002; 2002US-0394503P.
18-SEP-2002; 2002US-041833P.
06-FEB-2003; 2003US-0445342P.
                                                                                                       01-JUL-2003; 2003WO-US020636
                                                                                                                                                                                                                                                               (AVET ) AVENTIS PASTEUR INC.
                                                                                                                                                                                                                                                                                                                                                                           WPI; 2004-099378/10.
                    WO2004005463-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 9 AA;
                                                                15-JAN-2004
```

; 0 51.9%; Score 27; DB 8; Length 9; 50.0%; Pred. No. 1.8e+06; Live 2; Mismatches 2; Indels Query Match 51.9 Best Local Similarity 50.0 Matches 4; Conservative

ö

Gaps

2 ISVPLVPC 9

STANTANTO 6 ઠે 원

Search completed: April 1, 2005, 11:22:13 Job time : 59.5 secs

Sequence 207, App Sequence 21, Appl Sequence 2726, App Sequence 2726, App Sequence 1726, App Sequence 137, App Sequence 137, App Sequence 139, App Sequence 209, App Sequence 209, App Sequence 29, App Sequence 12, App Sequence 12, App Sequence 12, App Sequence 12, App Sequence 15, App Sequence 15, App Sequence 15, App Sequence 16, App Sequence 11, App Sequence 20, App Sequence 526, App

Sequence 69, Appl Sequence 69, Appl Sequence 69, Appl Sequence 68, Appl Sequence 116, Appl

```
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT PILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
NUMBER OF FILING DATE: 2000-05-16
SEQ ID NOS: 34
SEQ ID NOS: 34
SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 52; DB 9; I
100.0%; Pred. No. 1.3e+06;
US-10-611-440-207

US-09-780-457-21

US-09-780-053-148

US-10-006-869-2726

US-10-36-208-137-52

US-10-286-457-36

US-10-286-457-36

US-10-286-457-36

US-10-286-457-36

US-10-286-457-36

US-10-286-457-216

US-10-286-457-216

US-10-209-76-1140-209

US-10-611-440-209

US-09-77-579-19

US-09-977-579-19

US-10-286-457-165

US-10-286-457-165

US-10-286-457-165

US-10-286-457-165

US-10-386-457-165

US-10-388-457-165

US-10-388-457-167

US-10-388-457-167

US-10-388-289-450

US-10-388-289-450
                                                                                                                                                                                                                                                                                                                                                                                          US-10-138-375-69
US-10-829-381-69
                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-947-387-68
US-09-947-387-116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Sequence 14, Application US/09761636A; Patent No. US20020065218A1; GENERAL INFORMATION:
    Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-761-636A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLVPC 9
  RESULT 2
US-10-154-884B-11221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-761-636A-14
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 1
    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 11221, A
Sequence 11228, A
Sequence 11250, A
Sequence 11254, A
Sequence 11258, A
Sequence 11259, A
Sequence 11255, A
Sequence 11265, A
Sequence 11265, A
Sequence 1269, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               242, App
203, App
206, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 14, Appl
Sequence 11221, A
Sequence 11228, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                             April 1, 2005, 11:24:02 ; Search time 67 Seconds (without alignments) 44.542 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                               | Cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USOB_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/USOB_NEW_PUB.pep:*
               GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-14

US-10-154-884B-11221

US-10-154-884B-11228

US-10-154-884B-11256

US-10-154-884B-11256

US-10-154-884B-11256

US-10-154-884B-11259

US-10-154-884B-11259

US-10-154-884B-11265

US-10-154-884B-11265

US-10-154-884B-11265

US-10-154-884B-11265

US-10-154-884B-11265

US-10-154-884B-11265

US-10-154-884B-11280

US-10-154-884B-11280

US-10-154-884B-11280
                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                   1413372 seqs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                          Published Applications AA:*
                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                      - protein search, using sw model
                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                 US-09-761-636A-14
52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                              1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88.
110.
112.
113.
114.
116.
119.
                                                                                                                                                                                                            Scoring table:
                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB 8
Maximum DB 8
                                                                      OM protein
                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                Run on:
```

ö

Gapa

;

110 9 8 7 6 5 4 3 2

Result Š. Length 9; 0; Indels

```
APPLICANT: Adgate, Paul A.
APPLICANT: Adgate, Paul A.
APPLICANT: Adgate, Paul A.
APPLICANT: Adgate, Paul A.
APPLICANT: Rannion, Jane
APPLICANT: Retter, Warc W.
APPLICANT: Retter, Warc W.
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Hematological Malignancies
FILE REFERENCE: 014058-01352108
FILE REFERENCE: 014058-01352108
FILE REFERENCE: 014058-01352108
FILE REPEAROR: 014078-01352108
FILE REPEAROR: 014078-01352108
FRICK APPLICATION NUMBER: US 60/120,479
FRICK APPLICATION NUMBER: US 60/200,545
FRICK APPLICATION NUMBER: US 60/200,303
FRICK APPLICATION NUMBER: US 60/200,799
FRICK APPLICATION NUMBER: US 60/200,799
FRICK APPLICATION NUMBER: US 60/200,799
FRICK APPLICATION NUMBER: US 60/200,999
FRICK APPLICATION NUMBER: US 60/202,094
FRICK APPLICATION NUMBER: US 60/202,094
FRICK APPLICATION NUMBER: US 60/202,201
FRICK APPLICATION NUMBER: US 60/202,203
FRICK FILING DATE: 2000-09-03
FRICK FILING DATE: 2000-09-03
FRICK FILING DATE: 2000-09-03
FRICK APPLICATION NUMBER: US 60/202,203
FRICK FILING DATE: 2000-07-14
FRICK FILING DATE: 2000-05-01
FRICK FILING DATE: 2000-07-14
FRICK FILING DATE: 2000-05-01
FRICK FILING DATE: 2000-05-03
FRICK FILING DATE: 2000-05-0
PRIOR FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: US 60/200,779
PRIOR FILING DATE: 2000-04-28
PRIOR PLING DATE: 2000-04-28
PRIOR PLING DATE: 2000-05-01
PRIOR PLING DATE: 2000-05-04
PRIOR PLING DATE: 2000-05-22
PRIOR PLING DATE: 2000-07-14
PRIOR PLING DATE: 2000-07-14
PRIOR PLING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 60/218,950
PRIOR PLING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 60/212,903
PRIOR PLING DATE: 2000-07-14
PRIOR PLING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 60/218,950
PRIOR APPLICATION NUMBER: US 60/218,950
PRIOR DATE: 2000-07-14
PRIOR DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 60/218,950
PRIOR DATE: 2000-07-14
PRIOR DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 60/218,950
PRIOR DATE: 2000-05-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 27; DB 15; Length 9; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-154-884B-11250
; Sequence 11250, Application US/10154884B
; Publication No. US20040005561A1
; ENDERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match
Best Local Similarity 66.7
Local 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT; ORGANISM: Homo sapiens
US-10-154-884B-11228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                       APPLICANT: Galgete, Path A.

APPLICANT: Algate, Paul A.

APPLICANT: Manion, Jame
APPLICANT: Manion, Jame
APPLICANT: Manion, Jame
APPLICANT: Marc W.

APPLICANT: Retter, Macc W.

APPLICANT: Corisa Corporation

TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Compositions with the Corporation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 11228, Application US/10154884B

Publication No. US20040005561A1

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Gaiger, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Mannion, Jane
APPLICANT: Mannion, Jane
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Compositions and Malignancies
FILE REFERENCE: 014058-01352105
CURRENT APPLICATION NUMBER: US 60/186,126
PRIOR PILING DATE: 2000-03-01
PRIOR FILING DATE: 2000-03-01
PRIOR FILING DATE: 2000-03-01
PRIOR FILING DATE: 2000-03-17
PRIOR FILING DATE: 2000-04-27
PRIOR FILING DATE: 2000-04-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51.9%; Score 27; DB 15; Length 9; 66.7%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                            Sequence 11221, Application US/10154884B Publication No. US20040005561A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLSVPV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-10-154-884B-11228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-154-884B-11221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
```

Gaps

à

```
APPLICANT: August, Faul A.,
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Coriza Corporation
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Hematological Malignancies
FILE REPREBENCE: 044058-0135210S
FILE REPREBENCE: 04058-0135210S
FURBENT FILING DATE: 2002-05-23
FRICH PRICATION NUMBER: US 60/186,126
FRICH FILING DATE: 2000-03-01
FRICH PRICATION NUMBER: US 60/190,479
FRICH FILING DATE: 2000-04-27
FRICH PRICATION NUMBER: US 60/200,545
FRICH FILING DATE: 2000-04-28
FRICH FILING DATE: 2000-05-01
APPLICANT: Corixa Corporation TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy TITLE OF INVENTION: Hematological Malignancies
                                                                                                           FILE REPERENCE: 014058-0135105

FILE REPERENCE: 014058-0135105

CURRENT APPLICATION NUMBER: US/10/154,884B

CURRENT FILING DATE: 2002-05-23

PRIOR APPLICATION NUMBER: US 60/186,126

PRIOR PRIOR PELING DATE: 2000-03-01

PRIOR FILING DATE: 2000-03-07

PRIOR FILING DATE: 2000-04-27

PRIOR APPLICATION NUMBER: US 60/200,303

PRIOR FILING DATE: 2000-04-27

PRIOR APPLICATION NUMBER: US 60/200,709

PRIOR PLING DATE: 2000-04-28

PRIOR FILING DATE: 2000-04-28

PRIOR PLING DATE: 2000-04-28

PRIOR FILING DATE: 2000-05-01

PRIOR PRIOR DATE: 2000-05-01

PRIOR PRIING DATE: 2000-05-01

PRIOR PRIENCHING DATE: 2000-05-01

PRIOR FILING DATE: PASEQ FOR WINDOWS VERSION 3.0

SOFTWARER PRACESCO FOR WINDOWS VERSION 3.0

SOFTWARER PRIOR PARIOR PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          51.9%; Score 27; DB 15; Length 9; 66.7%; Pred. No. 1.3e+06; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11259, Application US/10154884B Publication No. US20040005561A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Gaiger, Alexander
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-154-884B-11259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo s
US-10-154-884B-11258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Algate, Paul A.
APPLICANT: Mannion, Jane
APPLICANT: Mannion, Jane
APPLICANT: Retter, Marc W.
APPLICANT: Corixa Corporation
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Hematological Malignancies
TITLE OF INVENTION: Hematological Malignancies
CURRENT APPLICATION NUMBER: US/10/154,884B
CURRENT APPLICATION DATE: 2002-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/186,126
PRIOR PLILING DATE: 2002-03-01
PRIOR PLILING DATE: 2000-03-01
PRIOR PELING DATE: 2000-03-01
PRIOR PLILING DATE: 2000-03-07
PRIOR PLILING DATE: 2000-04-27
PRIOR PLILING DATE: 2000-04-28
PRIOR PLILING DATE: 2000-05-01
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLILING DATE: 2000-07-14
PRIOR PLING DATE: 2000-08-03
                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                Score 27; DB 15; Length 9;
Pred. No. 1.3e+06;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  51.9%; Score 27; DB 15; Length 9; 66.7%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11254, Application US/10154884B
Publication No. US20040005561A1
GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
APPLICANT: Algate, Paul A.
APPLICANT: Mannion, Jane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         %3-10-154-884B-11258

%Sequence 11258, Application US/10154884B

Publication No. US20040005561A1

GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Mannion, Jane
APPLICANT: Retter, Marc W.
                                                                                         51.9%;
66.7%;
                                                                                Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |:|||:
CLSVPV 9
                                                                                                                                                                                                                                                              1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                      CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPL 6
    US-10-154-884B-11250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-154-884B-11254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-154-884B-11254
```

ઠે

```
APPLICANT: Galget, Alexander
APPLICANT: Galget, Alexander
APPLICANT: Manion, Jane
APPLICANT: Manion, Jane
APPLICANT: Manion, Jane
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Corixa Corporation
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: UN408E 101552108
FILE REPREBENCE: 104508-01352108
CURRENT FILING DATE: 2000-03-13
FRIOR PAPLICATION NUMBER: US 60/190,479
FRIOR PAPLICATION NUMBER: US 60/200,545
FRIOR APPLICATION NUMBER: US 60/200,545
FRIOR APPLICATION NUMBER: US 60/200,709
FRIOR APPLICANTION NUMBER: US 60/200,709
FRIOR PERMORE APPLICATION NUMBER: US 60/200,709
FRIOR PERMORE APPLICATION NUMBER: US 60/200,709
FRIOR PERMORE APPLICATION NUMBER: US 60/200,999
FRIOR PILING DATE: 2000-05-01
FRIOR PERMORE PRINCE CONO-05-02
FRIOR PERMORE PRINCE CONO-05-03
FRIOR PERMORE PRINCE CONO-06-03
FRIOR PERMORE PRINCE PRINCE CONO-06-03
FRIOR PERMORE PRINCE PRINCE CONO-06-03
FRIOR PERMORE PRINCE PRINCE PERMORE PRINCE PERMORE PRINCE PERMORE PRINCE PERMORE PERMOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Algate, Paul A.
APPLICANT: Annuion, Jane
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Corixa Corporation
TITLE OF INVENTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Compositions and Malignancies
FILE REFERENCE: 014058-0135210S
FILE REFERENCE: 014058-0135210S
CURRENT APPLICATION NUMBER: US/10/154,884B
FURNENT FILING DATE: 2002-05-23
PRIOR APPLICATION NUMBER: US 60/186,126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51.9%; Score 27; DB 15; Length 9; 66.7%; Pred. No. 1.3e+06; cive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 11280, Application US/10154884B Publication No. US20040005561A1 GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
                                                                                                                                                                                                                                                                            US-10-154-884B-11275
; Sequence 11275, Application US/10154884B
; Publication No. US20040005561A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 51.9
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                            |:|||:
4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:|||:
CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-154-884B-11275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
US-10-154-884B-11280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 11275
                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Cortise Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVERTION: Compositions and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVERTION: Hematological Malignancies
FILE REFERENCE: 014058-01352102
TITLE OF INVERTION: WINDER: US/01/154,884B
CURRENT APPLICATION NUMBER: US 60/186,126
PRIOR APPLICATION NUMBER: US 60/180,479
PRIOR APPLICATION NUMBER: US 60/200,545
PRIOR APPLICATION NUMBER: US 60/200,545
PRIOR FILING DATE: 2000-04-28
PRIOR FILING DATE: 2000-04-28
PRIOR PLICATION NUMBER: US 60/200,779
PRIOR APPLICATION NUMBER: US 60/200,779
PRIOR APPLICATION NUMBER: US 60/200,999
PRIOR PLING DATE: 2000-05-20
PRIOR PLING DATE: 2000-05-22
PRIOR PRIOR PLING DATE: 2000-05-24
PRIOR PRIOR DATE: 2000-05-22
PRIOR PRIOR PLING DATE: 2000-05-24
PRIOR PRIOR DATE: 2000-05-24
PRIOR PRIOR DATE: 2000-05-24
PRIOR PRIOR DATE: 2000-05-34
PRIOR PRIOR DATE: 2000-07-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
PRIOR FILING DATE: 2000-05-22;
PRIOR APPLICATION NUMBER: US 60/218,950;
PRIOR APPLICATION NUMBER: US 60/218,950;
PRIOR FILING DATE: 2000-07-14;
PRIOR FILING DATE: 2000-08-03;
Remaining Prior Application data removed - See File Wrapper or PALM.;
NUMBER OF SEQ ID NGS: 11290;
SOFTWARE: FastSEQ for Windows Version 3.0;
SEQ ID NO 11259;
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 27; DB 15; Length 9; Pred. No. 1.3e+06; 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51.9%; Score 27; DB 15; Length 9; 66.7%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 11265
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11265, Application US/10154884B Publication No. US20040005561A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Gaiger, Alexander
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens
US-10-154-884B-11259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens
US-10-154-884B-11265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:|||:
4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -10-154-884B-11265
```

Gaps ö

```
APPLICANT: Berinstein, Neil
APPLICANT: Gallichan, Scott
APPLICANT: Gallichan, Scott
APPLICANT: Gallichan, Scott
APPLICANT: Gallichan, Scott
APPLICANT: Lowitt, Corey
APPLICANT: Perviron, Lasalo
APPLICANT: Radvanyi, Lasalo
APPLICANT: Singh-Sandhu, Devender
APPLICANT: Singh-Sandhu, Devender
APPLICANT: Somen, Raymond P
APPLICANT: Cac, Shi-Xian
TITLE OF INVENTION: Cancer
FILE REPREBNCE: API-02-11-US
CURRENT FILING DATE: 2003-07-01
PRIOR APPLICATION NUMBER: US 60/394,346
PRIOR PELING DATE: 2002-07-09
PRIOR FILING DATE: 2002-07-09
PRIOR PELING DATE: 2002-07-09
PRIOR PELING DATE: 2002-07-09
PRIOR FILING DATE: 2002-07-09
PRIOR FILING DATE: 2003-07-09
            APPLICANT: Board of Regents, The University of Texas System TITLE OF INVENTION: Human and Mouse Targeting Peptides Identified by Phage Display PILE REFERENCE: 005774.P003PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 27; DB 16;
Pred. No. 1.3e+06;
1; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51.9%; Score 27; DB 16;
ilarity 50.0%; Pred. No. 1.3e+06;
Conservative 2; Mismatches 2.
                                                                                               CURRENT APPLICATION NUMBER: US/10/363,204
CURRENT FILING DATE: 2003-03-07
NUMBER OF SEQ ID NOS: 251
SEQ ID NO 203
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                             Sequence 206, Application US/10611440 Publication No. US20040197912A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                       TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 55.6%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: CLP-2916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CMSSPGVAC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :: ||||
2 VTAALVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-611-440-206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-611-440-206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 11290
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 11280
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Board of Regents, The University of Texas System TITLE OF INVENTION: Methods and Compositions for In Vitro Targeting FILE REPERENCE: 005774, P005PCT
CURRENT APPLICATION NUMBER: US/10/363,208
CURRENT FILING DATE: 2003-03-07
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PatentIn version 3.1
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 27; DB 15; Length 9; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51.9%; Score 27; DB 15; Length 9; 55.6%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
PRIOR PILING DATE: 2000-03-01
PRIOR APPLICATION NUMBER: US 60/190,479
PRIOR PLILING DATE: 2000-03-17
PRIOR PLILING DATE: 2000-03-17
PRIOR PLILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: US 60/200,303
PRIOR FILING DATE: 2000-04-28
PRIOR FILING DATE: 2000-04-28
PRIOR FILING DATE: 2000-04-28
PRIOR PLILING DATE: 2000-05-01
PRIOR PLILING DATE: 2000-05-04
PRIOR PLILING DATE: 2000-05-05
PRIOR PLILING DATE: 2000-05-05
PRIOR PLILING DATE: 2000-05-05
PRIOR PLILING DATE: 2000-05-05
PRIOR PRILING DATE: 2000-05-20
PRIOR PLILING DATE: 2000-05-20
PRIOR PLILING DATE: 2000-05-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1)..(9)
CTHER INFORMATION: synthetic construct
US-10-363-208-242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 242, Application US/10363208; Publication No. US20040048243A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 203, Application US/10363204; Publication No. US20040170955A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51.9%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 55.0
Eres 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-10-154-884B-11280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CMSSPGVAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 CLSVPV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-363-208-242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-363-204-203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

ö

Gaps

; 0

```
Search completed: April 1, 2005, 11:34:31 Job time : 67 secs
::||||
2 AIPLVP 7
                                임
                                                                                       APPLICANT: Berinstein, Neil
APPLICANT: Berinstein, Neil
APPLICANT: Gallichan, Scott
APPLICANT: Gallichan, Scott
APPLICANT: Lovitt, Corey
APPLICANT: Berinstein, Mark
APPLICANT: Radvanyi, Lasslo
APPLICANT: Radvanyi, Lasslo
APPLICANT: Radvanyi, Lasslo
APPLICANT: Radvanyi, Lasslo
APPLICANT: Cao, Shi-Xian
TITLE OF INVENTION: Tumor Antigens BFA4 and BCY1 for Prevention and/or Treatment of
TITLE OF INVENTION: Cancer
FILE REFRENCE: API-102-11-US
CURRENT APPLICATION NUMBER: US 60/394,346
FRIOR APPLICATION NUMBER: US 60/394,503
PRIOR PILING DATE: 2002-07-09
PRIOR FILING DATE: 2002-07-09
PRIOR FILING DATE: 2002-09-18
PRIOR PELLOR DATE: 2002-09-18
PRIOR PELLOR DATE: 2002-09-18
PRIOR PELLOR DATE: 2002-09-18
PRIOR PELLOR DATE: 2002-09-18
SOFTWARE: PatentIn version 3.2
SEQ ID NOS: 218
SEQ ID NOS 207
SEQ ID NO 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , OTHER INFORMATION: artificial sequence isolated from random peptide libraries, based
, OTHER INFORMATION: ability to selectively bind to endothelial cells
US-10-286-457-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: JENO GYURIS et al.

TITLE OF INVENTION: ENDOTHELIAL-CELL BINDING PEPTIDES FOR DIAGNOSIS AND THERAPY
FILE REFERENCE: GPCI-P01-17

CURRENT APPLICATION NUMBER: 05/10/286,457

CURRENT FILING DATE: 2002-11-01

PRIOR APPLICATION NUMBER: 60/334822

PRIOR FILING DATE: 2001-11-01

NUMBER OF SEQ ID NOS: 684

SEQ ID NO 21

LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 27; DB 16; Length 9; Pred. No. 1.3e+06; 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 26; DB 14; Length 7; Pred. No. 1.3e+06; 2; Mismatches 0; Indels
                     Sequence 207, Application US/10611440 Publication No. US20040197912A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-286-457-21
, Sequence 21, Application US/10286457
; Publication No. US20030166004A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51.9%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h
Similarity 66.7%;
4; Conservative 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: CLP-2917
US-10-611-440-207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :: ||||
1 VTAALVPC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
```

Gaps . O.

0; Indels

3 SVPLVP 8

8.4

```
1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               сврктс 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-839-542B-1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-187-859-1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41, Appl
35, Appl
35, Appl
41, Appl
2713, Ap
1713, Ap
2719, Ap
2719, Ap
20, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1885, Ap
2747, Ap
1885, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3970, Sequence 4046, Sequence 3700, Sequence 3573, Sequence 3573, Sequence 2154, Sequence 4040, Sequence 4040, Sequence 411, App. Sequence 35, App.
                                                                                                      April 1, 2005, 11:47:34; Search time 43 Seconds (without alignments) 10.416 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2154,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Issued Patents AA:*

(cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
(cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
  version 5.1.6
- 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-187-859-1374
US-09-187-859-1374
US-09-187-859-1798
US-09-187-859-1798
US-09-187-859-1798
US-09-187-859-3070
US-09-839-5428-1379
US-09-839-5428-1373
US-09-839-5428-14040
US-09-839-5428-4040
US-09-839-5428-411
US-09-839-5428-411
US-09-839-5428-411
US-09-839-5428-1737
US-09-839-5428-2719
US-09-839-5428-2719
US-09-839-5428-2719
US-09-839-5428-2719
US-09-839-5428-2719
US-09-8618-24
US-09-050-8618-24
US-09-050-8618-24
US-09-1839-5428-2719
US-09-050-8618-24
US-09-050-8618-24
US-09-1839-5428-2719
US-09-050-8618-24
US-09-0839-5428-2719
US-09-0839-5428-2719
US-09-0839-5428-2719
US-09-0839-5428-2719
US-09-0839-5428-2719
                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                             513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                          OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                   BLOSUM62
Gapop 10.0 , Gapext 0.5
GenCore
Copyright (c) 1993
                                                                                                                                                                                US-09-761-636A-12
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                               1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0 Maximum DB seq length: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46.64.69
                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Result
No.
```

```
ö
                                   4, Appli
6, Appli
13, Appl
1591, Ap
1591, Ap
1594, Ap
1670, Ap
                                                                                                                                               13, Appl
13, Appl
4, Appli
181, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1374, Application US/09839542B

Patent No. 656996

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPHERIN-MEDIATED FUNCTIONS
TITLE REFERENCE: 100086 407D1
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT PILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SEQ ID NO 1374
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                               GENERAL INCEMPATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPHERIA-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1374
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Representative cyclic modulating agent based on ; OTHER INFORMATION: cadherin-7 cell adhesion recognition sequence US-09-187-859-1374
                                                                             Sequence 1
Sequence 1
Sequence 1
                                   Sequence
Sequence
Sequence
Sequence
                                                                                                              Sequence
Sequence
Sequence
                                                                                                                                                          Sequence
Sequence
Sequence
                                                                                                                                                Sequence
                                                                                                                                                                                            Sequence
                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 68.4%; Score 26; DB 3; Length 6; Best Local Similarity 66.7%; Pred. No. 4.1e+05; Matches 4; Conservative 0; Mismatches 2; Indels
ALIGNMENTS
                                                                                                                                                                                                                                                                                Sequence 1374, Application US/09187859A Patent No. 6358920
                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
```

```
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CDPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDPKTC
                          CVPLTC
                                                            1 CDPKTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
US-09-839-542B-3970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-839-542B-1798
                                                                                                                        RESULT 5
US-09-187-859-4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                    셤
                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                            | Sequence 1798, Application US/09187859A | Sequence 1798, Application US/09187859A | Sequence 1798, Application US/09187859A | Patent No. 6358920 | GENERAL INFORMATION: A PEPLICANT: Blaschuk, Orest W. APPLICANT: Gour, Barbara J. TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS | FILE REPERENCE: 100086.407C1 | CURRENT APPLICATION NUMBER: US/09/187,859A | CURRENT FILING DATE: 1998-11-06 | NOWBER OF SEQ ID NOS: 4052 | SOFTWARE: Patentin Ver. 2.0 | SEQ ID NO 1798 | LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4

9.09-187-859-3970

9.8equence 3970, Application US/09187859A

9.8equence 3970, Application US/09187859A

9.8equence 3970, Application US/09187859A

9.8equence 3970, Application US/09187859A

9.9epticant Blaschuk, Orest W.

9.9epticant Gour, Barbara J.

9.7ette OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL

9.7ette OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL

9.7ette Reference: 100066.40701

9.7ette Coursent Application NUMBER: US/09/187,859A

9.7ette Coursent Filling Date: 1998-11-06

9.8offware: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Representative cyclic modulating agent based on ; OTHER INFORMATION: cadherin-14 cell adhesion recognition sequence US-09-187-859-3970
) ORGANISM: Artificial Sequence

; FEATURE:

OTHER INFORMATION: Representative cyclic modulating agent based on

; OTHER INFORMATION: cadherin-7 cell adhesion recognition sequence

US-09-839-542B-1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-12 cell adhesion recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 25; DB 3; Length 6; Pred. No. 4.1e+05; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65.8%; Score 25; DB 3; Length 6; 66.7%; Pred. No. 4.1e+05; ive 0; Mismatches 2; Indels
                                                                                                                                  4.1e+05;
                                                                                                                            Length 6;
                                                                                                                        68.4%; Score 26; DB 4;
66.7%; Pred. No. 4.1e+05
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                            Query Match
Best Local Similarity 66.77
Local 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 ĆDPKTC 6
                                                                                                                                                                                                         1 CVPLTC 6
                                                                                                                                                                                                                                           1 CEPKTC 6
                                                                                                                                                                                                                                                                                                     RESULT 3
US-09-187-859-1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-187-859-1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 3970
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                           8
                                                                                                                                                                                                                                             g
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-839-542B-1798
US-09-839-542B-1798
US-09-839-542B-1798
Sequence 1798, Application US/09839542B
Sequence 1798, Application US/09839542B
Sequence 1708.
Batch No. 656996
GENERAL INFORMATION:
APPLICANT: Blacknik, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407D;
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT PAPLICATION UNDER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4046
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-12 cell adhesion recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-09-187-859-4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65.8%; Score 25; DB 4; I
66.7%; Pred. No. 4.1e+05;
iive 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 25; DB 3; I
Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
Sequence 4046, Application US/09187859A Patent No. 6358920 GENERAL INFORMATION:
```

```
Best_Local Similarity
Matches 3; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                  | |::|
CDPVSC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | |::|
CDPVSC 6
                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-839-542B-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-187-859-2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                      LENGTH: 6
                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
Sequence 3970, Application US/09839542B
Fatent No. 656996
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407D1
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-839-542B-4046

Sequence 4046, Application US/09839542B
Facent No. 656996
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REPERENCE: 100086-407D1
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4046
LENGTH: 6

LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3573, Application US/09187859A

Patent No. 6358920

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Bour's Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-14 cell adhesion recognition sequence US-09-839-542B-3970.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-09-839-542B-4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.8%; Score 25; DB 4; Length 6; 66.7%; Pred. No. 4.1e+05; live 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 25; DB 4; I
Pred. No. 4.1e+05;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                65.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 66.79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 4; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          сректс 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CDPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
US-09-187-859-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Squence 2154, Application US/09187859A
Patent No. 6358920
GENERAL INFORMATION:
GENERAL INFORMATION:
TAPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CAMPERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100066.407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Barbara J. James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: CADHERIN-MEDIATED FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100006.4071
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3573
                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion CTHER INFORMATION: recognition sequence US-09-187-859-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion CTHER INFORMATION: recognition sequence US-09-839-542B-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                            63.2%; Score 24; DB 3; Length 6; 50.0%; Pred. No. 4.1e+05; 1; Indels 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63.2%; Score 24; DB 4; I 50.0%; Pred. No. 4.1e+05; iive 2; Mismatches 1;
FILE REFERENCE: 100086.407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3573, Application US/09839542B
Patent No. 6569996
                                                                                                                                                                                               TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 63.2
Best Local Similarity 50.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
```

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
                                                                               ò
                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                     US-09-187-859-4040
); Sequence 4040, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
; APPLICANT: GOUL, Barbara J.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
; FILE REFERENCE: 100086.407C1
; CURRENT APPLICANT: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 4040
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2154, Application US/09839542B
Patent No. 656996
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPPENDS.
                                                      ; FEATURE:
; OTHER INFORMATION: Representative cyclic modulating agent based on
; OTHER INFORMATION: cadherin-15 cell adhesion recognition sequence
US-09-187-859-2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; FEATURE:
; OTHER INFORMATION: Representative cyclic modulating agent based on
; OTHER INFORMATION: PB-cadherin cell adhesion recognition sequence
US-09-187-859-4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-15 cell adhesion recognition sequence US-09-839-542B-2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                        Score 23; DB 3; Length 6;
Pred. No. 4.1e+05;
0; Mismatches 2; Indels
                                                                                                                                          60.5%; Scor.
66.7%; Pred. No. 4...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/839,542B CURRENT FILING DATE: 2001-04-20 NUMBER OF SEQ ID NOS: 4052 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 2154
              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                      Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                        CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDELTC 6
                                                                                                                                                                                                                                                                             1 CDELTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
US-09-839-542B-2154
                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                 GENERAL INCORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Barbara J. James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gymonds, James J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.40701
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4440
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-09-839-542B-4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: BROWN, MICHAEL S.
APPLICANT: GOLDSTEIN, JOSEPH L.
APPLICANT: GOLDSTEIN, JOSEPH L.
APPLICANT: GOLDSTEIN, JOSEPH L.
APPLICANT: JAMES, GUY L.
TITLE OF INVENTION: METHODS FOR THE IDENTIFICATION OF FARNESYL
TITLE OF INVENTION: TRANSFERASE INHIBITORS
NUMBER OF SEQUENCES: 85
CORRESPONDENCE ADDRESS:
ADDRESSEE: ARNOLD, WHITE & DURKEE
STREET: P.O. BOX 4433
CITY: HOUSTON
                                                  ;
  Score 23; DB 4; Length 6; Pred. No. 4.1e+05; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60.5%; Score 23; DB 4; Length 6; 66.7%; Pred. No. 4.1e+05; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: BATEM: PC-DOS/MS-DOS/ASCII
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/429,964
TTING DATE: 27-APR-1995
                                                                                                                                                                                                                                                      Sequence 4040, Application US/09839542B Patent No. 6569996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/021,625 FILING DATE: 16-FEB-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 41, Application US/08429964 Patent No. 5962243
60.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Artificial Sequence
                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 60.5
Best Local Similarity 66.7
Matches 4; Conservative
                          Best_Local Similarity
Matches 4; Conser
                                                                                              1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CVPLTC 6
                                                                                                                                       CDELTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CDELTC 6
                                                                                                                                                                                                               RESULT 14
US-09-839-542B-4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: UNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-429-964-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE:
```

```
CLASSIFICATION: 415
APPLICATION NUMBER: 0 07/822,011
FILING DATE: ABANDONED
CLASSIFICATION NUMBER: PCT/US/91/02650
FILING DATE: 18-APR-1991
CLASSIFICATION NUMBER: PCT/US/91/02650
FILING DATE: 18-APR-1991
CLASSIFICATION: 415
APPLICATION NUMBER: US 07/615,715
FILING DATE: 20-NOV-1990
CLASSIFICATION: 435
APPLICATION: 435
APPLICATION: 435
APPLICATION: 435
APPLICATION: 435
APPLICATION NUMBER: US 07/510,706
CLASSIFICATION: 435
ATORNEY/AGRAT INFORMATION:
NAME: PARKER, DAVID L.
REGISTRATION NUMBER: 32,165
ATORNEY/AGRAT INFORMATION:
FELEPHONE: (512) 418-3000
FELEPHONE: (512) 418-3000
FELEPHONE: (512) 418-3000
FELEPHONE: (512) 418-3000
FELECHONE: (512) 418-3000
FELECHON
```

Search completed: April 1, 2005, 11:55:14 Job time : 43 Becs

1 CVPM 4

g

THIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

Run on:

April 1, 2005, 12:01:21 ; Search time 38 Seconds (without alignments) 25.320 Million cell updates/sec

US-09-761-636A-13 56 1 CISVPLSVPC 10 Title: Perfect score:

Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 segs, 96216763 residues Searched:

1102 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 10

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

pIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES Reg

Description		glycogen phosphory		Ig heavy chain CRD	vitellogenin, 190k	T-cell receptor be	metallothionein-A	205K excantigen -	T-cell receptor be	polygalacturonase	major postsynaptic	ATP-binding protei	cytochrome-c oxida	hypothetical prote	댭	myomodulin - Calif	gene Cftr protein	Btom	collagen alpha 2(V	gomy	aryl hydrocarbon (Na+/K+-exchanging	<u>α</u> ,	protein P7 - curle	alpha-gliadin 4Ha	alpha-gliadin 6Ha	flagellar protein	conopressin S - co	Ig heavy chain CRD
	I65546	A60521	C39111	PT0247	A61622	PH0944	I51049	G33098	PH0926	S62880	A42689	B49712	843630	E86128	B22565	A28340	157018	A60356	S26508	C39745	865715	A32195	A24407	D28027	A61218	B61218	E42364	B28495	PT0268
DB	5	~	~	N	N	~	7	N	N	N	N	~	~	N	~	N	~	~	~	~	~	~	N	~	7	~	8	N	~
Length	9	Ŋ	10	σ	10	10	4	œ	10	10	œ	σ	10	10	Ŋ	7	∞	σ	σ	10	10	10	10	10	10	10	S	0	6
% Query Match	35.7	33.9		32.1	30.4	30.4	28.6	28.6	28.6	28.6	26.8	•	9	ė.	25.0	25.0	25.0	25.0	•	5.	5.	5.	ů.	'n.	ů	25.0	23.2	<u>ښ</u>	23.2
Score	20	19	19	18	17	17	16	16	16	16	15	15	15	15	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13
ssult No.	1	~	e	4	ហ	9	7	æ	σ	10	11	12		14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	

cytochrome-c oxida	hemagglutinin - in	platelet activatin	Fc mu (IgM) recept	phosphoprotein, bo	dnaA protein - Pse	alpha-1,4-glucan-p	hypothetical colla	seed protein ws-5	aggrecan - bovine	Ig H chain V-D-J r	neural cell adhesi	T-cell receptor be	tryptophyllin, bas	nitrate reductase	enamelin f - bovin
S77984	S51912	B45482	C39398	811127	B34835	B26206	A35039	E61491	S42620	PH1602	A39690	PH0932	A61081	S68802	S10783
9	10 2	10 2	10 2	12	9	9	6	7	7 2	7 2	7 2	7 2	7 2	8	8
23.2	23.2	23.2	23.2	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
13	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12
30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

```
MHC H2-L antigen - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Accession: I6546
R;Kimura, A.; Israel, A.; Le Bail, O.; Kourilsky, P.
Cell 44, 261-272, 1986
A;Title: Detailed analysis of the mouse H-2Kb promoter: Enhancer-like sequences and their
A;Reference number: I52778; MUID:86106202; PMID:3510743
A;Reference number: I5546
A;Reference number: I5546
A;Reference number: Ichininary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-6 <RES>
A;Residues: 1-6 <RES>
A;Cross-references: GB:M12483; NID:g199565; PIDN:AAA39663.1; PID:g554234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 35.7%; Score 20; DB 2; Length 6; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 VPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 VPC 4
165546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
```

AUCOSEN phosphorylase (EC 2.4.1.1), muscle - mullet (Liza ramada) (fragment)
N.Alternate names: glycogen phosphorylase b
C.Accession armada
C.Accession: A6051
R.Banante, L.; Baanante, I.V.
R.Banante, L.; Baanante, I.V.
R.Bicchem. Physiol. B 95, 295-301, 1990
A.Title: Purification and characterization of glycogen phosphorylase B from skeletal musc
A.Feference number: A60521; MUID:90227907; PMID:2109669
A.Accession: A60521
A.Molecule type: protein
A.Accession: A60521
A.Molecule type: protein
C.Keywords: 15 - BON>
A.Fesidues: 15 - BON>
C.Keywords: glycosyltransferase; hexosyltransferase; phosphorylase b kinase) #status experime
F;3/Binding site: phosphate (Ser) (covalent) (by phosphorylase b kinase)

Gaps ö Similarity 100.0%; Pred. No. 2.8e+05; As Indels 4; Conservative 0; Mismatches 0; Indels Query Match Best Local Similarity Matches 4; Conserv 2 ISVP 5 ò

ö

RESULT

Ŋ

2 ISVP

셤

```
T.ceil receptor beta chain V-D-J region (clone 15) - rat (fragment)
C;Species: Rattus norregicus (Norway rat)
C;Species: Rattus norregicus (Norway rat)
C;Date: 09-0ct-1992 #sequence_revision 09-0ct-1992 #text_change 30-May-1997
C;Accession: PH0044
R;Gold, D.P.; Offiner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-147, 1991
A;Fitle: Analysis of T cell receptor beta chains in Lewis rats with experimental allergic
A;Reference number: PH0891; MUID:92078857; PMID:1836012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           metallothionein-A - rainbow trout (fragment)
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Accession: 15:049
E;Accession: 15:049
E;Accession: 15:049; MUD:95324545; PMID:7601121
A;Reference number: 15:049; MUD:95324545; PMID:7601121
A;Accession: 15:049
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: OLS>
A;Residues: 1-4 <OLS>
A;Cross-references: EMBL:X80181; NID:g1019799; PIDN:CAA56466.1; PID:g4379328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G33098
205K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)
205K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)
C;Species: Plasmodium falciparum
C;Species: 24-Aug-1990 #sequence_revision 24-Aug-1990 #text_change 09-Jun-2000
C;Accession: G33098
R;Nichols, J.H.; Hager, L.P.
R;Nichols, J.H.; Hager, L.P.
A;Reference number: A33098
A;Reference number: A33098
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-8 <NIC>
                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Accession: PH0944
A;Molecule type: mRNA
A;Residues: 1-10 «GOL»
A;Experimental source: complete Freund's adjuvant-immunized lymph node
A;Note: the authors translated the codon GAC for residue 9 as Glu
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 17; DB 2; Length 10;
Pred. No. 5.2e+03;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 28.6%; Score 16; DB 2; Length 8; Best Local Similarity 60.0%; Pred. No. 2.8e+05; Matches 3; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 28.6%; Score 16; DB 2; Length 4; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 VPLSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASSP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 PC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 PC 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
A61622
vitellogenin, 190k chain - gypsy moth (fragment)
N;Contains: vitellin
C;Species: Lymantria dispar (gypsy moth)
C;Species: Lymantria dispar (gypsy moth)
C;Species: Lulu-1995 #sequence_revision 28-Jul-1995 #text_change 15-Oct-1999
C;Accession: A61622
R;Hiremath, S.; Bshita, S.
R;Hiremath, S.; Bshitar, S.
R;Hiremath, S.; Bshita, S.
R;Hiremath, S.; Bshitar, S.
R;Hiremath, S.
R;Hiremath
Ig heavy chain C region - Pacific hagfish (fragment)
Ig heavy chain C region - Pacific hagfish (fragment)
C;Species: Datatretus stouti (Pacific hagfish)
C;Actesion: C39111
R;Varner, J.; Neame, P.; Litman, G.W.
Proc. Natl. Acad. Sci. U.S.A. 88, 1746-1750, 1991
A;Title: A serum heterodimer from hagfish (Eptatretus stoutii) exhibits structural simil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain CRD3 region (clone 2-106A) - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0247
R;Yamada, M: Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
D; Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and A;Accession: PT0222; MUID:91108337; PMID:1899102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 17; DB 2; Length 10;
Pred. No. 5.2e+03;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33.9%; Score 19; DB 2; Length 10; 71.4%; Pred. No. 2.46+03; rive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32.1%; Score 18; DB 2; Length 9; 42.9%; Pred. No. 2.8e+05; tive 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                           A,Status: preliminary
A,Molecule type: protein
A,Remidues: 1-10 «VAR»
C,Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Molecule type: DNA
A;Residues: 1-9 <Y2M\>
A;Experimental Gource: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30.4%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best_Local Similarity 42.5
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 ISSPLVV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 ISVPLSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 SVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SAPIDSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PLTEP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g/--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

met

ö

Gaps

.. 0

ö

Gaps

.; 0

ö

Gaps

; 0

ന

T-cell

셤

```
C;Species: Canis lupus familiaris (dog)
C;Species: Canis lupus familiaris (dog)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 07-May-1999
C;Necession: B49712
A;Retens: preliminary
A;Molecule type: protein
A;Residues: 1-9 <NIG>
C;Keywords: ATP; endoplasmic reticulum; molecular chaperone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cytochrome-c oxidase (EC 1.9.3.1) chain VIC, hepatic - rainbow trout (fragment)
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 20-Oct-1994 #sequence_revision 01-Nov-1996 #text_change 09-Jul-2004
C;Accession: S43630
Bur. J. Biochem. 221, 1111-1116, 1994
A;Title: Identification of tissue-specific isoforms for subunits Vb and VIIa of cytochron A;Reference number: S43624; MUID:94237150; PMID:8181469
A;Accession: S43630
A;Molecule type: protein
A;Residues: 1-10 <RRE>
A;Cossion: S43630
A;Molecule type: grotein
A;Residues: 1-10 <RRE>
A;Cossion: S43630
A;Molecule type: grotein
A;Accession: S43630
A;Accession: S4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein Z5903 [imported] - Escherichia coli (strain O157:H7, substrain EDL95: C;Species: Escherichia coli acoli (strain O157:H7, substrain EDL95: C;Species: Escherichia coli #feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004 C;Accession: E86128 #seperna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew, Nature 409, 529-533, 2001 #tille: L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca, A;Reference number: A65480; MUID:21074935; PMID:11206551 #s. A;Reference number: E86128
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Genome: nuclear
C;Keywords: liver; membrane-associated complex; mitochondrion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.8%; Score 15; DB 2; Length 10; 75.0%; Pred. No. 1.18+04; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26.8%; Score 15; DB 2; Length 9; 33.3%; Pred. No. 2.8e+05; ive 1; Mismatches 3; Indels
   Indels
       ä
   0; Mismatches
                                                                                                                                                                                                                                                 RESULT 12
B49712
ATP-binding protein p46 - dog (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 26.8
Best Local Similarity 75.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Conservative
   3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 VPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : | |
1 IPXXYP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
                                                                            6 LSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 TRAB 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LXVP 5
                                                                                                                                                 2 LKVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S43630
                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                              C;Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Accession: PH0926
R;Gold, D.P.; Offiner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A;Title: Analysis of T cell receptor beta chains in Lewis rats with experimental allergi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polygalacturonase (EC 3.2.1.15) IV - Aspergillus sp. (fragment)
C;Species: Aspergillus sp.
C;Dacte: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: Sc2880
R;Stratilova, E.; Dzurova, M.; Markovic, O.; Joernvall, H.
FEBS Lett. 382, 164-166, 1996
A;Title: An essential tyrosine residue of Aspergillus polygalacturonase.
A;Reference number: S62880, MUID:96196586; PMID:8612742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   major postsynaptic density protein - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 26-May-1994 #sequence_revision 26-May-1994 #text_change 09-Jul-2004
C;Accession: A42689
R;Wu, K.; Huang, Y.; Adler, J.; Black, I.B.
Proc. Natl. Acad. Sci. U.S.A. 89, 3015-3019, 1992
A;Title: On the identity of the major postsynaptic density protein.
A;Reference number: A42689; WUID:92212958; PMID:1313576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                   receptor beta chain V-D-J region (isolate 12) - rat (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Accession: PH0926
A;Molecule type: mRNA
A;Residues: 1-10 «GOL»
A;Esperimental source: concanavalin A-activated lymphoblast
A;Note: the authors translated the codon AGA for residue 4 as Thr
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16; DB 2; Length 10;
Pred. No. 7.7e+03;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h Similarity 100.0%; Score 16; DB 2; Le Similarity 100.0%; Pred. No. 7.7e+03; 2; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26.8%; Score 15; DB 2; I
75.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Modecule type: protein
A,Residues: 1-10 <STR>
A,Cross-references: UNIPROT:Q7M500
C,Keywords: glycosidase; hydrolase
F;4/Active site: Tyr #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Molecule type: protein
A,Residues: 1-8 <WUA>
A,Cross-references: UNIPROT:Q7M041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       / Match 28.6%;
Local Similarity 60.0%;
hes 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CASRP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary
VPLXL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 PC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 PC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
```

RESULT 10 S62880

RESULT 11

ઠ 셤

Matches

ઠ g

```
A,Molecule type: DNA
A,Residues: 1-10 <STO>
A,Cross_references: UNIPROT:Q8X4E5; GB:AE005174; NID:g12519314; PIDN:AAG59489.1; GSPDB:G
A;Experimental source: strain O157:H7, substrain EDL933
C;Genetics:
A;Gene: Z5903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R-phycoerythrin alpha-2 chain - red alga (Gastroclonium coulteri) (fragment) C; Species: Gastroclonium coulteri C; Species: Gastroclonium coulteri C; Species: Gastroclonium coulteri C; Species: Gastroclonium coulteri C; Species: Oraz-1988 #text_change 23-Mar-1993 C; Accession: B22565 R; Klotz, A.V.; Glazer, A.N. A; Klotz, A.V.; Glazer, A.N. A; Hitle: Characterization of the bilin attachment sites in R-phycoerythrin. A; Reference number: A22565; MUID:85182601; PMID:3886644 A; A; Molecule type: protein A; Residues: 1-5 < KLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                    Query Match

26.8%; Score 15; DB 2; Length 10;

Best Local Similarity 60.0%; Pred. No. 1.1e+04;

Matches 3; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 25.0%; Score 14; DB 2; Length 5; Best Local Similarity 75.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                   6 LSVPC 10
                                                                                                                                                                                                                                                                                                                                                  5 LQVVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6 Trans 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 LCVP 4
                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

Search completed: April 1, 2005, 12:09:04 Job time: 38 secs

```
/Mon Apr
```

```
PRELIMINARY;
                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                        4 VPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
les 3; Conser
                                                                                                                                                                                                                                                                                                                                                                  9 AA;
\phi
                                                                                                                                                                                                                                                                                                                                                                                                                   IPILTPC
TISSUE-Thymus;
                                                                                                                                                                                                                                                                                                                  cysteine.
                                                                                                                                MGMT_BOVIN
P29177;
                                                                                                                                                                                 Name=MGMT;
NON TER
ACT SITE
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                            Q70Y88
ID Q70Y88
AC Q70Y88;
                                                                                                                                                                                                                            SEQUENCE
                                                                                                                   RESULT 1
MGMT_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
ò
                                                                                                                                                                                                                                                                                                                                                                                                                         aspergillus
anopheles g
macaca mula
                                                                                                                                                                                                                                                                                         moloney mur
moloney mur
moloney mur
                                                                                                                                                                                                                                                                                                                                          zea mays (m
cynops pyrr
                                                                                                                                                                                                                                                                                                                                                      oenothera b
zea mays (m
                                                                                                                                                                                                                                                                                                                                                                         homo sapien
                                                                                                                                                                                                                                                                                                                                                                               oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                     sus sp. ins
carassius c
                                                                                                                                                                                                                                                                                                                                                                                                              carassius a
                                                                                                                                                                                                                                                                                                                                                                                                                                            wollastonia
otopappus e
                                                                                                                                                                                                                                                                                                                 locusta mig
escherichia
                                                                                                                                                                                                                                                                                                                                                                                                  homo sapien
                                                                                                                                                                                                                                                                             rattus norv
                                                                                                                                                                                                                                                                                   mus musculu
                                                                                                                                                                                                                                                                                                            streptococc
                                                                                                                                                                                                                                                                                                                              couns burbu
                                                                                                                                                                                                                                                                                                                                     homo sapien
                                                                                                                                                                                                                                                                                                                                                                   virus c/
                                                                                                                                                                                                                                                                                                                                                                                                        ovine respi
                                                                                                                                                                                                                                                                                                                                                                                                                                                         elaphandra
                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                               (without alignments)
44.529 Million cell updates/sec
                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                                                                                   đ
                                         1, 2005, 11:55:20 ; Search time 115 Seconds
                                                                                                                                                                                                                                                                            078672
085538
085558
085519
085619
076140
076135
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
077633
07763
                                                                                                                                                                                                                                                                P29177
                                                                                                                          2548
     GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                             1612378 segs, 512079187 residues
                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                            078E72
085563
085563
085598
085619
056140
07WUG2
07WUG2
07WYAK
09744K
061754
061754
07Y018
                                                                                                                                                                                                                                                               MGMT_BOVIN
Q70Y88
                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                              - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                        Q15898
O02831
                                                                                                                                                                                                                                                                                                                                                                                                 Q6QF45
Q8QVD3
Q8AUM7
                                                                                                                                                                                                                                                                                                                                                                                                                   Q8AYL5
Q7M500
                                                                                                                                                                                                                                                                                                                                                                                    Q9TRY3
Q6UA69
                                                                                                 Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                37 PHS 9
                                                                                                                                                                                                                                                                                                                                                                                                                                      28SPN8
                                                                                                                                                                                UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                US-09-761-636A-13
56
                                                                                                                                                                                                                                             Query
Match Length DB
                                                                             1 CISVPLSVPC 10
           Copyright
                                                                                                                                     seq length: 0
seq length: 10
                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                   30.4
                                                                                          Scoring table:
                                                                         Perfect score:
                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                 OM protein
                                                                                                                                     Minimum DB
Maximum DB
                                                                              Sequence:
                                                                                                             Searched:
                                                                                                                                                                                 Database
                                         Run on:
                                                                                                                                                                                                                                                                                   Result
                                                                                                                                                                                                                                                   Š.
```

```
ô
                                                                                                                                                          fugu rubrip
rattus norv
                                                                                                                                                                                                                             sinorhizobi
                                                                                                                                                                                                                                                                                                    locusta miq
                                               baltimora r
                                                                     angelphytum
                                                                                            angelphytum
                                                                                                               pyrrhobryum
                                                                                                                                       pinus taeda
                                                                                                                                                                                                                                                     oncorhynchu
                                                                                                                                                                                                                                                                          mycobacteri
                                                                                                                                                                                                          neurospora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-19UNAGE-10174912; PubMed-2108822; Rydberg B., Hall J., Karran P.; FUKCTION: Instance and in the cellular defense against the biological effects of 06-methylguanine (06-MeG) in DNA. Repairs alkylated guanine in DNA by stoichiometrically transferring the alkylated guanine in DNA by stoichiometrically transferring the alkylated suicide reaction: the enzyme is irreversibly inactivated.

-!- CATALYTIC ACTIVITY: DNA (containing 6-O-methylguanine) + protein L-cysteine = DNA (without 6-O-methylguanine) + protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-1992 (Rel. 24, Last sequence update)
05-UJL-2004 (Rel. 44, Last annotation update)
Methylated-DNA-protein-cysteine methyltransferase (EC 2.1.1.63) (6-O-methylguanine-DNA methyltransferase) (MGMT) (0-6-methylguanine-DNA-alkyltransferase) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct protein sequencing; DNA repair; Methyltransferase; Transferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (Bovine).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alkyl group acceptor (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                        Q712a6
P80331
P81135
06jvp8
06jvq0
06jvq3
06jvq7
085a29
094i86
042564
07m041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46.4%; Score 26; DB 1; Length 9; ilarity 42.9%; Pred. No. 1.6e+06; Conservative 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          325171A720476047 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SIMILARITY: Belongs to the MGMT family.
InterPro; IPR001497; Methyltransf_1.
PROSITE; PS00374; MGMT; PARTIAL.
                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                           O712A6
COXH ONCMY
NS1 MYCTU
                                          06JV03
06JV05
06JV07
085AZ9
094 IS6
042564
07M041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-1992 (Rel. 24, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          967 MW;
```

```
9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=83164305; PubMed=6300424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=82196891; PubMed=6281735;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                   PRELIMINARY;
                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=11801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ||||:
1 VPLSL 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 VPLSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEOUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                              035953;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              285563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     085563
                                                                     035953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                   RESULT 4
035953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               085563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DDT ACCOOC ON THE BEACT OF THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                   Bukaryota; Uridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
lamiida; Lamiales; Lamiaceae; Nepetoideae; Ocimeae; Platostoma.
NCBI_TaxID=204168;
                                                                                                                                                                                                                                                                                                     PubMed=15019625; DOI=10.1016/j.ympev.2003.08.002;
Paton A., Springate D.A., Sudde S., Otieno D., Grayer R., Harley M.M., Willis F., Simonda M.S.J., Powell M.P., Savolainen V.;
Willis F., Simonda M.S.J., Powell M.P., Savolainen V.;
"Phylogeny and evolution of basils and allies (Ocimeae, Labiatae) based on three plastid DNA regions.";
MOI. Phylogenet. Evol. 31:277-299 (2004).
EMBL, AJ505368; CAD45489.1; --
GO, GO:0003735; F:structural constituent of ribosome; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN=Witers, TISSUB=Liver,
STRAIN=Witers, TISSUB=Liver,
MEDIJINE—91307698; PubMed=9165040; DOI=10.1210/en.138.6.2491;
Orwig K.E., Dai G., Rasmussen C.A., Soares M.J.;
"Decidual/trophoblast prolactin-related protein: characterization of gene structure and cell-specific expression.";
Endocrinology 138:2491-2500(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Decidual/trophoblast prolactin-related protein (Fragment).
Name=d/tPRP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 21; DB 2; Length 9; Pred. No. 1.6e+06; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-Wistar; TISSUE-Liver;
Corwig K.O., Dai G., Soares M.J.;
Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
EMBL, 144438; AAB17697.1; -.
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Ribosomal protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE 9 AA; 1088 MW; 5AED1776C5B73767 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 AA; 789 MW; 86786772D1BB4772 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 22; DB 2; 1
Pred. No. 1.6e+06;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last seq
05-JUL-2004 (TrEMBLrel. 27, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   37.5%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         39.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                    latostoma fimbriatum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   || :||
VPYTVP 6
                                                                                                                                                                                                                                                                                      FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ribosomal protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 VPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 VPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116;
                                                                                                Name=rps16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q78E72
Q78E72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
```

ò

LPLSQP 7

g

8

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=97442476; PubNed=9295353; DOI=10.1074/jbc.272.38.24008; Plummer N.W., McBurney M.W., Meisler M.H.; Plummer N.W., McBurney M.W., Meisler M.H.; Plummer N.W., McBurney M.W., Meisler M.H.; McBernative splicing of the sodium channel SCN8A predicts a truncated two-domain protein in fetal brain and non-neuronal cells."; J. Biol. Chem. 272:24008-24015(1997). EMBL; U97672; AAB80914.1; MCD; MCD; MCI:103169; Scn8a. MCD; MCI:103169; Scn8a. MCO; MCI:103169; P:adult walking behavior; IMP. GO; GO:0007626; P:locomotory behavior; IMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Donoghue D.J., Hunter T.;

"A generalized method of subcloning DNA fragments by restriction site reconstruction. Application to sequencing the amino-terminal region of the transforming gene of Gazdar murine sarcoma virus.";

Nucleic Acids Res. 10:2549-2564(1982).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Donoghue D.J., Hunter T.;
"Recombination junctions of variants of Moloney murine sarcom virus:
Generation and divergence of a mammalian transforming gene.";
J. Virol. 45:607-617(1983).
EMBL; K03105; AA446491.1; -.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                           Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi; Mammalia, Eutheria, Rodentia, Sciurognathi; Muridae, Murinae; Mus NCBI_TaxID=10090;
01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-CCT-2003 (TrEMBLrel. 25, Last annotation update)
Truncated voltage-gated sodium channel alpha subunit (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35.7%; Score 20; DB 2; Length 9; 80.0%; Pred. No. 1.6e+06; rive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Env-mos fusion protein (Fragment).
Moloney murine leukemia virus.
Viruses; Retroid viruses; Retroviridae; Gammaretrovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 AA; 1062 MW; F9ECFCBEA771B5B1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9 AA; 898 MW; 22D92865B735B737 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35.7%; Score 20; DB 2; I
75.0%; Pred. No. 7.2e+03;
tive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ilarity 75.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
tes 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
```

g

ò

RESULT 6
1085598
1086598
AC 0855
AC 085
AC 0855
AC 085

Matches

RESULT 7

요

ઠે

```
Constable A., Mollet B.; "Isolation of promoter regions from Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Comp. Biochem. Physiol. 106C:103-109(1993).
-!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=94004539; PubMed=7903606; DOI=10.1016/0742-8413(93)90260-R; Schoofs L., Holman G.M., Nachman R., Proost P., van Damme J., de Loof A.; Holman G.M., Nachman R., Proost P., van Damme J., misolation, identification and synthesis of locustapyrokinin II from Locusta migratoria, another member of the FXPRL-amide peptide family."
                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activity).
-!- SIMILARITY: Belongs to the pyrokinin family.
InterPro; IPR001484; Pyrokinin.
PROSITE; PS00539; PROKININ; 1.
Amidation; Direct protein sequencing; Neuropeptide; Pyrokinin;
Pyrrolidone carboxylic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Locustaptokinin 2 (LOM-PR-2) (FXPRL-amide).

Eukaryotein Metazoa, Arthropoda; Hexapoda; Insecta; Prerygota;
Neoptera; Orthopteroidea; Otthoptera; Caelifera; Acridomorpha;
Acridoidea; Acrididae; Oedipodinae; Locusta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Match 33.9%; Score 19; DB 1; Length 10; Local Similarity 57.1%; Pred. No. 1.1e+04; les 4; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                   'Match 33.9%; Score 19; DB 2; Length 8; Local Similarity 100.0%; Pred. No. 1.6e+06; les 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pyrrolidone carboxylic acid
                                                                                                 Bacteria, Firmicutes, Lactobacillales, Streptococcaceae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Leucine amide.
CFAF4271A9D1B772 CRC64;
                   Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                   thermophilus.";
FEMS Microbiol. Lett. 122:85-90(1994).
BEML; X78210; CAA55045.1; -.
NON TER
SEQÜENCE 8 AA; 846 MW; ED086772D5B045B6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 AA.
   Created)
                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=ST11;
MEDLINE=95047254; PubMed=7958782;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 10
10 AA; 1145 MW;
01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-DEC-2001 (TrEMBLrel. 19, STP6 protein (Fragment).
                                                                                  Streptococcus thermophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 SVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 SVPTFTP
                                                                                                                                      NCBI_TaxID=1308;
                                                                                                                                                                                                                                                                                                                                                                                                                         Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 ISVP 6
                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISVP
                                                                                                                     Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LPK2 LOCMI
P41488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOD RES
MOD RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LPK2 LOCMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                 Donoghue D.J., Hunter T.;
"Recombination junctions of variants of Moloney murine sarcom virus:
Generation and divergence of a mammalian transforming gene.";
J. Virol. 45:607-617(1983).
EMBL; K03108; AA446494.1; -.
NON TER. 10 10 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                               01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Moloney murine sarcoma virus (strain HT1) env/mos S' junction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Moloney murine sarcoma virus (strain m1) env/mos 5' junction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35.7%; Score 20; DB 2; Length 10; 75.0%; Pred. No. 7.2e+03; attive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 20; DB 2; Length 10;
Pred. No. 7.2e+03;
0; Mismatches 1; Indels
                                                                                                                                                                                                                 (Fragment).
Moloney murine leukemia virus.
Viruses; Retroid viruses; Retroviridae; Gammaretrovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Moloney murine leukemia virus.
Viruses; Retroid viruses; Retroviridae; Gammaretrovirus.
VCBI_TaxID=11801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE 10 AA; 1081 MW; 7BECFCBEA771B5A4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 AA.
                                                                                                                   10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10 AA
                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=83164305; PubMed=6300424;
                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE=83164305; PubMed=6300424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 75.0%;
Matches 3; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 75.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                  NCBI_TaxID=11801;
SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 SVPC 10
                           STPC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 STPC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 STPC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q56140
Q56140;
                                                                                                               Q85598;
Q85598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q85619
Q85619;
```

ô

Gaps

RESULT 8

ઠે

Q56140 ID Q5 AC Q5

ö

Gaps

ACCOOC OCT REPARED THE REPARED

```
SEQUENCE FROM N.A.

MEDLINE=201080806; PubMed=10640831;
Drechsler M., Schumacher V., Friedrich S., Wildhardt G., Giesler S., Schroth A., Bodem J., Royer-Pokora B.;
"Genomic structure, allternative transcripts and chromosome location of the human LIM domain binding protein gene LDB1.";
Cytogenet. Cell Genet. 87:119-124(1999).
BMBL; AJ243097; CAB45408.1;
NON TER 8
SEQÜENCE 8 AA; 767 MW; EEGEBDDEB862D5B6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wilson L.M., Whitt S.R., Ibanez A.M., Rocheford T.R., Goodman M.M., Buckler E.S. IV.;
Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
EMBL, AY290305; AAP45331.1; ---
EMBL, AY290311; AAP45337.1; ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
PACCAD clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 30.4%; Score 17; DB 2; Length 8; Best Local Similarity 60.0%; Pred. No. 1.6e+06; Matches 3; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30.4%; Score 17; DB 2; Length 9; 66.7%; Pred. No. 1.6e+06; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                             (TrEMBLrel. 12, Created)
(TrEMBLrel. 12, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NON TER 9 9 9 SEQUENCE 9 AA; 976 MW; DF9BCEA76736C6DD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                            Nuclear LIM interactor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2003 (TrEMBLrel. 25, 01-OCT-2003 (TrEMBLrel. 25, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 66.,
2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Isoamylase (Fragment).
                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 LSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :|| |
1 MSVGC 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 VPC 10
                                                                                             01-NOV-1999 (
01-NOV-1999 (
01-DEC-2001 (
                                                                                                                                                                                                       Name=NLI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q61754
Q61754;
                                               Q9Y4X6
Q9Y4X6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27x6A3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q7X6A3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
Q61754
ID Q6175
AC Q6175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q7X6A3
                          09Y4X6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                       Miriagou V., Tzouvelekis L.S., Villa L., Lebessi E., Vatopoulos A.C., Carattoli A., Tzelepi E.; "CMY-13, a Novel Inducible Cephalosporinase Encoded by an Escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
STRAIN=Clipperton Island; TISSUE=Venom;
MEDLINE=99388839; PubMed=10461743;
Jacobsen R.B., Jimenez E.C., De la Cruz R.G.C., Gray W.R., Cruz L.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A novel D-leucine-containing Conus peptide: diverse conformational dynamics in the contryphan family.";
J. Pept. Res. 54:39-99(1999)
1. Sept. Res. 54:39-91(1999)
1. SUBCELLULAR LOCATION: Secreted.
1. TISSUE SPECTROITY: Expressed by the venom duct.
1. MASS SPECTROMETRY: MW=888.4; METHOD=LSI; RANGE=1-8; NOTE=Ref.1.
2. SIMILARITY: Belongs to the contryphan family.
D-amino acid; Direct protein sequencing; Toxin.
                                                                                                                                                                                                                               Bacteria, Proteobacteria, Gammaproteobacteria, Enterobacteriales,
Enterobacteriaceae, Escherichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conus purpurascens (Purple cone).
Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
Neogastropoda; Conoidea; Conidae; Conus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33.9%; Score 19; DB 2; Length 10; 57.1%; Pred. No. 1.18+04; tive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32.1%; Score 18; DB 1; Length 8; 40.0%; Pred. No. 1.6e+06; Live 2; Mismatches 1; Indels
                                                  01-OCT-2003 (TrEMBLrel. 25, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NOW IER 10 AV 882D57A5B045A2D5 CRC64; SEQUENCE 10 AA; 991 MW; 882D57A5B045A2D5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE 8 AA; 890 MW; 75A367672732CEB8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antimicrob. Agents Chemother. 48:3172-3174(2004).
EMBL; AY339625; AAQ16673.1; -.
Plasmid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 AA.
     10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D-leucine.
     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 40.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 57.1
Matches 4; Conservative
     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 SVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SVSISCP 9
                                                                                                                               InpIS1 (Fragment).
                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |: :|
CVLLP 6
                                                                                                                                                                               Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Leu-contryphan-P
                                                                                                                                                                                                                                                                                                                                                                                                                                      coli Plasmid.";
                                                                                                                                                                                                                                                                                       NCBI_TaxID=562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Olivera B.M.;
                                                                                                                                                                                                            Plasmid p541.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONPU
                                                                                                                                                          Name=insA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COW2 CON
P58785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
COMPU
COMPU
COMPU
COMPU
DD 28-FEB-
DT 28-FEB-
DT 25-OFTB-
DD 28-FEB-
DT 25-OFTB-
DG COMPU
CO MOGDAGG
     Q7WUG2
```

ò g

; 0

Gaps

ò

ö

Gaps

; 0

a 🗸

à

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                          Cynops pyrrhogaster (Japanese common newt).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Caudata; Salamandroidea; Salamandridae; Cynops.
NCBI_TaxID=8330;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oenothera' bertiana (Bertero's evening primrose).
Mitochondrion.
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
NYTALES; Onagraceae; Oenothera.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=94019250; PubMed=8413195;
Schuster W.;
"Ribosomal protein gene rpl5 is cotranscribed with the nad3 gene in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
PubMed=15172683; DOI=10.1016/j.mod.2004.04.010;
Hayashi T., Mizuno N., Ueda Y., Okamoto M., Kondoh H.;
Hayashi T., Egera derived lens regeneration in newt eye.";
Mech. Dev. 121:519-526(2004).
EMBL, AB154819; BAD24664.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30.4%; Score 17; DB 2; Length 10; 100.0%; Pred. No. 2.4e+04; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            / Match 30.4%; Score 17; DB 2; Length 9; Local Similarity 60.0%; Pred. No. 1.6e+06; nes 3; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oenothera mitochondria.";
Mol. Gen. Genet. 240:445-449(1993).
EMBL; X69553; CAA49285.1; -.
GO; GO:0005739; C:mitochondrion; IEA.
Mitochondrion; Ubiquinone.
NON TER
SEQUENCE 10 AA; 1097 MW; 723067B0476DD9CB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
Last sequence update)
Last annotation update)
05-JUL-2004 (TrEMBLrel. 27, Created)
65-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
SOX2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEE-1997 (TrEMBLrel. 02, Created)
01-FEE-1997 (TrEMBLrel. 02, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
NADH-ubiquinone oxidoreductase subunit 3 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NON TER 1 1 1
SEQUENCE 9 AA, 969 MW; 2167F5B7376731A8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 10v..
3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ::|||
3 TLPLS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 SVPLS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 CIS 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CIS 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                096041;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               096041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
096041
AC 09604
AC 09604
DT 01-FE
DT 0
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
```

Search completed: April 1, 2005, 12:08:14 Job time : 115 secs

THIS PAGE BLANK (USPTO)

Saccharom Human alb Albumin f Human can Hepatitis Human can Human can Protease Mammalian

HLA motif HLA motif Human LY1 Human LY1

ALIGNMENTS

Aag85638 AdJ76442 Adx06442 Adx06442 Adx06442 Adx19524 Adx19524 Adx102838 Adx71003 Adx35441 Adx35434 Adx3544 Adx354 Adx354

ADIT 7529
ABR19062
ABR19062
ABR196642
ABR19674
ABR18977
AAR74541
AAR74541
AAR74541
AAR74541
AAR754541
ADM35440
ADM35456
ADM35454
ADM35456
ADM35456
ADM35456
ADM35456
ADM35456
ADM35456
ADM35426
ADM35456
ADM35456
ADM35456
ADM35426

Run on:

```
Aau04532 VEGF base
Aav65138 Protease
Aav86212 D-NorFES-
Aaw86212 D-NorFES-
Aaw862012 D-NorFES-
Aaw862014 D-NorFES-
Adm88105 Flucrogen
Adm88105 Flucrogen
Adm8818 Human mem
Adm8818 Human nov
Aau94301 Human nov
Aau94201 Human nov
Aau94696 Human nov
                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                     1, 2005, 11:54:25; Search time 117 Seconds (without alignments) 33.056 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                              2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                    - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04532
AAR96133
AAR96133
AAW82212
AAW82637
AAW82094
AAW82094
AAW82094
AAW82094
AAW82094
AAW82094
AAW8305
ABW8305
ABW8305
ABW8305
ABW8305
ABW835397
AAW94201
AAW94201
AAW94201
AAW94201
AAW94303
                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                   A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
4: geneseqp2000s:*
5: geneseqp2001s:*
6: geneseqp2003as:*
7: geneseqp2003as:*
7: geneseqp2003bs:*
                                                                                                                 US-09-761-636A-13
56
                                                                                                                                       1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                         seq length: 0
seq length: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0
                                                                                                                                                              Scoring table:
                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                         Minimum DB B
Maximum DB B
                                                    OM protein
                                                                                                                                       Sequence:
                                                                                                                                                                                              Searched:
```

Database

Result

ģ

AMOU4512 standard; peptide; 10 AA. AAU04512; AAU04512; AAU04512; Y G-SEP-2001 (first entry) E SEP-2001 (first entry)		
AAU04532; 26-SEP-2001 (first entry) VEGF based monocyclic peptide 10. Human; VEGF; vascular endothelial growth factor; angiogenesis; neovaccularisation; lymphanojogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; Synthetic. Key MO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176299P. 18-JAN-2000; 20		standard; peptide;
AAU04532; 26-SEP-2001 (first entry) VEGF based monocyclic peptide 10. Human, VEGF; vaccular endothelial growth factor; angiogenesis; necvascularisation; lymphanglogenesis peoriasis; tumour; diabetes induced necvascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Key Location/Qualifiers Disulfide-bond 110 Anote= "This bond cyclises the peptide" WOZ00152875-Al. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop fractom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv WGCFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
26-SEP-2001 (first entry) VEGF based monocyclic peptide 10. Human; VEGF, vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetes induced brond: 1. 10 Key MOZ00152875-A1. 26-JUL-2001. 18-JAN-2001; 2001W0-US001533. 18-JAN-2001; 2001W0-US001533. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop fra growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv Whose 3-dimensional structure is modelled on the exposel loop of whose 3-dimensional structure is modelled on the exposel loop of whose 3-dimensional structure is modelled on the exposel loop of whose 3-dimensional structure is modelled on the producing a monomeric method of producing a monomeric monocyclic peptide by a messuring method of producing a monomeric monocyclic peptide by a messuring		4532;
VEGF based monocyclic peptide 10. Human; VEGF; vascular endothelial growth factor; angiogenesis; necvoscularisation; lymphangiogenesis; psoriabis; tumour; diabetes induced neovascularisation; tymphangiogenesis; psoriabis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Key Location/Qualifiers Disulfide-bond 110 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-017629P. 18-JAN-2000; 2000US-0176299P. 18-JAN-2000; 2000US-017629P. 1		
VEGF based monocyclic peptide 10. Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Key Location/Qualifiers Ji. 10 Jote= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-JAN-2000; 2000US-0176293P. 16-JAN-2000; 2000US-0176293P. 16-JAN-2000; 2000US-0176293P. 16-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-01509P. 18-JAN-2000; 2000US-0150P. 18-JAN-2000; 200US-0150P. 18-JAN-2000; 2		
Human; VEGF; vascular endothelial growth factor; angiogenesis; neovasculariaation; lymphanojogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabeter retinopathy; chronic inflammation; cyclic. Synthetic. Key Location/Qualifiers Disulfide-bond 1. 10 Note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphanojogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3 dimensional structure is modelled on the expose loop of WEGPP (vascular endothalial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		based monocyclic peptide 10.
Human; VEGF; vascular endothelial growth factor; angiogeneeis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Location/Qualifiers Disulfide-bond 1. 10 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inventor of a dimensional structure is modelled on the expose loop of WEGPP (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a menomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Key Location/Qualifiers Disulfide-bond 1. 10 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-0176299P. 16-MAY-2000; 2000US-017629P. 18-JAN-2000; 2000US-017629P. 18-JAN-2000P. 18-JAN-2000; 2000US-017629P. 18-JAN-2000; 2000US-0176		n; VEGF; vascular endothelial growth factor; angiogenesis;
diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Location/Qualifiers Disulfide-bond 110 //note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of by VEGFD (vascular endothelial growth factor). The invention relates method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a measuring method of measuring		ascularisation; lymphangiogenesis; psoriasis; tumour;
diabetic retinopathy; chronic inflammation; cyclic. Synthetic. Key Location/Qualifiers Disulfide-bond 110 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with anglog or lymphangiogenesis, is produced by cyclizing a peptide loop fractor monocyclic peptide of the inversidues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invention relates messal are endochelial growth factor). The invention relates method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a measuring method of measuring method of producing, a measuring method of measuring		arthriti
Synthetic. Key Location/Qualifiers Disulfide-bond 110 MO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176291P. 16-MAY-2000; 2000US-0176291P. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide loop fragicus. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invance and the expose loop of hyper and according a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		etic retinopathy; chronic inflammation; cyclic.
Synthetic. Key Location/Qualifiers Disulfide-bond 110 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of by VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
Location/Qualifiers Disulfide-bond 110 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDM-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with anglogor or lymphangiogenesis, is produced by cyclizing a peptide loop fractor and exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invahose 3-dimensional structure is modelled on the expose loop of hyggen of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		hetic.
Ney Location/Qualifiers Disulfide-bond 110 /note= "This bond cyclises the peptide" WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176291P. 16-MAY-2000; 2000US-0176291P. Novel monomeric monocyclic peptide loop fraging the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invances 3-dimensional structure is modelled on the expose loop of hybrid invancion relates method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a monomeric monocyclic peptide by a measuring method of producing, a measuring method of measuring	×	
Disulfide-bond 110 MO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of by WEGFD (vascular endothelial growth factor). The invention relates method of producing, a measuring method of producing a monomeric monocyclic peptide by a measuring		Location/Qualifiers
/note= "This bond cyclises the peptide" W0200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDM-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiogon or lymphangiogenesis, is produced by cyclizing a peptide loop fractrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invention related by UNGSPD (vascular endochelial growth factor). The invention related method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
WO200152875-A1. 26-JUL-2001. 18-JAN-2001; 2001WO-US001533. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiogor i lymphangiogenesis, is produced by cyclizing a peptide loop fractor and exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invahose 3-dimensional structure is modelled on the expose loop of hygge (vascular endochelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		/note=
WO200152875-A1. 26-JUL-2001. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of by WEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring	×	
18-JAN-2001. 18-JAN-2001; 2001WO-US001533. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDM-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop fraffer man exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invance of the superference of the invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		0152875-A1.
26-JUL-2001. 18-JAN-2001; 2001WO-US001533. 16-MAY-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiogor or lymphangiogenesis, is produced by cyclizing a peptide loop from an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invention related by used loop of the invention related method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
18-JAN-2001; 2001WO-US001533. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0176293P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiogor in lymphangiogenesis, is produced by cyclizing a peptide loop from an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of by VEGFD (vascular endochelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		UL-2001.
18-JAN-2001; 2001WO-USCOISSS. 18-JAN-2000; 2000US-017629JP. 16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of WEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
18-JAN-2000; 2000US-017629JP. 16-MAY-2000; 2000US-020459OP. (LUDM-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of whose 3-dimensional structure is modelled on the expose loop of wedgeD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		
16-MAY-2000; 2000US-0204590P. (LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiogor or lymphangiogenesis, is produced by cyclizing a peptide loop fractor man exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invention relates whose 3-dimensional structure is modelled on the expose loop of WUGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		
(LUDW-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop fractom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of NVGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		
(LUDM-) LUDWIG INST CANCER RES. Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angioc or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the fresidues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of whose 3-dimensional structure is modelled on the expose loop of wedge (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		
Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inventon relates whose 3-dimensional structure is modelled on the expose loop of VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		nad dalak howe the
Achen MG, Hughes RA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop fractor is protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of WEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		W-) LUDWIG INST CANCER RES.
Acnen Ms, hugnes KA, Stacker S, Cendron A; WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop fra from an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of hy VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		0 111111
WPI; 2001-442248/47. Novel monomeric monocyclic peptide, used to interfere with angiog or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional atructure is modelled on the expose loop of WEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		Hugnes KA, Stacker S,
Novel monomeric monocyclic peptide, used to interfere with angiogor lymphangiogenesis, is produced by cyclizing a peptide loop fractor lymphangiogenesis, is produced by cyclizing a peptide loop fractor and exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		27/07/07/
Novel monomeric monocyclic peptide, used to interfere with angioc or lymphangiogenesis, is produced by cyclizing a peptide loop frafrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of WEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring method of producing a monomeric monocyclic peptide by a measuring		7007-447748/4/.
or lymphangiogenesis, is produced by cyclizing a peptide loop frefrom an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the invention whose 3-dimensional structure is modelled on the expose loop of hyEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring) monomeric monocyclic peptide. Used to interfere with angiogenesi
from an exposed loop of a growth factor protein by oxidizing the residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of by VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		$r_{\rm con}$
residues. Claim 49; Page 32; 102pp; English. The sequence represents a monomeric monocyclic peptide of the inv whose 3-dimensional structure is modelled on the expose loop of VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		of a growth factor protein by oxidizing the
		lues.
		m 49; Page 32; 102pp; English.
		sequence represents a monomeric monocyclic peptide of the inventic
VEGFD (vascular endothelial growth factor). The invention relates method of producing a monomeric monocyclic peptide by a measuring		e 3-dimensional structure is modelled on the expose loop of human
method of producing a monomeric monocyclic peptide by a measuring		D (vascular endothelial growth factor). The invention relates to a
LC COCKRALO OF GRACIER GRACECOCK COCKRALOR COC		

AAU94696 AAU95023 AAG73418

4 6 9 6 9 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8

```
neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cendron A;
                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stacker S,
                                                                                                                                                                                                                                                      AAU04533 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                 VEGF based monocyclic peptide 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                      18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                  26-SEP-2001 (first entry)
                                                                                                                                                                                         Conservative
                                                                                                                                                                                                      1 CISVPLSVPC 10
                                                                                                                                                                                                                   1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-442248/47.
                                                                                                                                                diabetic retinopathy
                                                                                                                                                                                Local Similarity
nes 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                     Disulfide-bond
                                                                                                                                                              Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                           WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Achen MG,
                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                          Query Match
Best Local S:
                                                                                                                                                                                                                                                                     AAU04533;
                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                RESULT 2
ద
                                                                                                                                                                                                        ð
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CC Whose 3-dimensional structure is modelled on the expose loop of human CC WEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betaction distances on opposite antiparallel strands of a petide loop fragment from an exposed loop of a growth factor protein and cyclic peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, covascularisation or lymphangiogenesis in a mammal with a condition of characterised by anglogenesis in evvascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psociasis, arthropathy, hemangionm, vascularised malignant or benign tumour, post-recovery creamers, substance-induced neovascular settions induced neovascular settions induced neovascular settions in induced neovascular settings. Appetention of the liver, excessive condition induced neovascular sequelae, or chronic liver, infertion is the monocide of neovascular sequelae, or chronic liver, infertion is diabete induced neovascular sequelae, appertunion induced neovascular seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "the two conformation determining regions C1 and C2 which flank the protease recognition site peptide P are provided to position the two fluorophores within 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infection. The peptides are also used to modulate vescular permeability in a mammal (the mammal has a condition characterised by fluid in a mammal (the mammal has a condition characterised by fluid or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VGGF. VGGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat activity induced as a construction, especially rheumatoid arthitis, psoriasis and chronic inflammation, especially rheumatoid arthitis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fluorogenic substrate; fluorophore; protease activity; assay; visible fluorescence; in situ detection; frozen tissue section; histology; arthritis; emphysema; thrombosis; cancer metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protease substrate peptide with fluorophore at each terminus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "labelled by donor fluorophore (F1)
carboxytetramethylrhodamine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74.1%; Score 41.5; DB 4; Length 9; 90.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  angstroms of each other"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           location/Qualifiers
                                                                                   Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR96138 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l. .3
/label= C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 90..
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CISVPL-VPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-MAR-2003
18-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR96138;
               residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides by oxidising the cysteine residues. The monocyclic peptides, dimerial biocyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, corrected by angiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, heat or cold trauma, substance-induced neovascularisation of the liver, excessive crauma, substance-induced neovascularisation of the liver, excessive trauma, substance-induced neovascularisation of the liver, excessive creams, the peptides are also used to modulate vascular permeability in a mammal the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF. VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a continuation inflammatory agent, and and administration and accumental accumental and accumental accumentation with an anti-inflammatory agent, to treat a 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 56; DB 4; Length 10; 100.0%; Pred. No. 0.013; ive 0; Mismatches 0; Indels
```

ä

Gaps

1;

/note= "peptide comprising a protease recognition site"

label= P

Peptide

or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine Novel monomeric monocyclic peptide, used to interfere with angiogenesis,

Region

```
AAW82023-W82240 are peptides used in the construction of a fluorogenic composition which is used for the detection of protease activity in biological samples. The products can be used for the detection of conformation changes in nucleic acids, oligosaccharides, proteins, peptides, lipids, phopholipids, glycolipids, glycoproteins, steroids or polymers. In addition, attachment of a hydrophobic group to amolecule can be used to enhance uptake by cells. The composition is composed of P = peptide comprising a protease binding site for the protease, F1, F2 peptides = fluorophores where F1 is attached to the amino terminal amino acid and F2 is attached to the carboxyl terminal amino acid and S1, S2 peptides = when present, are peptide spacers where S1, when present, is attached to the carboxyl terminal amino acid, and S2, when present, is attached to the carboxyl terminal amino acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protease binding site; protease; protease indicator; fluorescent signal; detection; protease activity.
                                                                                                                                                                                                                                              New fluorogenic compositions - containing 2 fluorophores separated by a peptide comprising a protease binding site, used for detecting protease activity in samples.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64.3%; Score 36; DB 2; Length 9; 50.0%; Pred. No. 1.8e+06; ive 4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide backbone of a protease indicator.
                                                                                                                                                                                                                                                                                                                                   Example 1; Page 52; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW46562 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94US-00331383.
                                           98WO-US003000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-00549008.
                                                                                  97US-00802981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 50.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Komoriya A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ONCO-) ONCOIMMUNIN INC
                                                                                                                         (ONCO-) ONCOIMMUNIN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 SVPLSVPC 10
                                                                                                                                                                                                            WPI; 1998-467579/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ::|:|:|
AIPMSIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 9 AA;
                                                                                20-FEB-1997;
                                         20-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-OCT-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Packard BS,
                                                                                                                                                                  Komoriya A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US5714342-A.
  27-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW46562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABW46562
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               detecting activity of a processe. The substrate agrees with the generic formula (S1)n-C1(F1)-P-C2(F2)-(S2)k in which a peptide P of 2-8 amino acids comprising a recognition site for the processe is flanked by conformation determining regions (C1 and C2) of 1-3 amino acids. C1 and C2 are labelled by fluorophore groups (F1 and F2, respectively) costitioned within 100 amgstroms of each other. Additional peptide spacers of 1-50 amino acids (S1 and S2) may also be present (i.e. n and k = 0 or 1). Fluorogenic substrates corresponding to the generic formula are used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  present sequence is a specific example of a fluorogenic substrate for
                                /note= "the two conformation determining regions C1 and C2 which flank the protease recognition site peptide P are provided to position the two fluorophores within 100 angstroms of each other"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to detect or localise proteases in biological specimens, esp. in frozen tissue sections or to monitor protease activity in stored reagents. Changes in protease activity are associated with e.g. arthritis, emphysema, thrombosis and cancer metastasis. (Updated on 25-MAR-2003 to
                                                                                                                                           /note= "labelled by acceptor fluorophore F2 rhodamine X acetamide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protease activity; fluorphore; detection; fluorogenic; cellular uptake;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New fluorogenic peptide(s) with fluorophore at each terminus - for detecting protease(s) in biological samples, emit intense visible fluorescence when cleaved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 36; DB 2; Length 9;
Pred. No. 1.8e+06;
4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D-NorFES-A protease inhibitor peptide #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW82212 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 16; Page 31; 88pp; English
                                                                                                                                                                                                                                                                                            95WO-US013936.
                                                                                                                                                                                                                                                                                                                                     94US-00331383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64.3%;
50.0%;
8. .9
/label= C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-FEB-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                      Komoriya A, Packard BS;
                                                                                                                                                                                                                                                                                                                                                                            (ONCO-) ONCOIMMUNIN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      conformation change.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1996-239512/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ::|:|:|
AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       emphysema, thrombo correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 9 AA;
                                                                                                                         Modified-site
                                                                                                                                                                                                                                                                                                                                   28-OCT-1994;
                                                                                                                                                                                                            WO9613607-A1
                                                                                                                                                                                                                                                   09-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW82212;
```

ö

Gaps

;

Fluorogenic substrates for protease determination - having two closely

WPI; 1998-158345/14.

WO9837226-A1

Synthetic

Matches

ð a

```
The present peptide contains a protease binding site. It is used to produce novel reagents whose fluorescence increases in the presence of produce novel reagents whose fluorescence increases in the presence of particular proteases. These fluorogenic protease indicators (substrates) corporated a high intensity fluorescent signal at a visible wavelength when they are digested by a protease. The fluorogenic indicators have the contensing a protease binding site e.g. AAM46520-53, AAM46550-F1 a peptide containing a protease binding site e.g. AAM46520-53, AAM46550-F1 n, k = containing a protease binding site e.g. AAM46520-53, AAM46554-58 n, k = containing a protease binding site e.g. AAM46520-53, AAM46554-58 n, k = containing a protease of conformation-determining regions that introduce a containing a protease indicators and no fless than 100 Angstrom. When n is 1, S1 is joined to the terminal carboxy group of C1 by a peptide bond, and when k is 1, S2 is joined to the terminal carboxy group of C2 by a containing the protease indicators are used for detecting protease activity in a biological sample. The sample is contacted with the indicator and any change in fluorescence is detected, an increase in contacted with the contact and any change in fluorescence is detected, an increase in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /______the two conformation determining regions C1 and /note= the two conformation determining regions C1 and C2 which flank the protease recognition site peptide P are provided to position the two fluorophores within 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "the two conformation determining regions Cl and C2 which flank the protease recognition site peptide P are provided to position the two fluorophores within 100 angstroms of each other"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _note= "labelled by acceptor fluorophore F2 rhodamine X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.../
habel= P
/note= "peptide comprising a protease recognition site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fluorogenic substrate, fluorophore, protease activity, assay, visible fluorescence, in situ detection, frozen tissue section, histology, arthritis, emphysema, thrombosis, cancer metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protease substrate peptide with fluorophore at each terminus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "labelled by donor fluorophore (F1)
carboxytetramethylrhodamine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 36; DB 2; Length 9;
Pred. No. 1.8e+06;
4; Mismatches 0; Indels
spaced fluorophores flanking protease binding site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 angstroms of each other"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR96137 standard; peptide; 9 AA.
                                     Example 1; Col 23; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                        64.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     label= Nle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3. .9
/label= C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .3
/label= C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ::|:|:|
2 AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR96137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
The present sequence is a specific example of a fluorogenic substrate for detecting activity of a protease. The substrate agrees with the generic detecting activity of a protease. The substrate agrees with the generic correction of the state of the protease is flanked by acids comprising a recognition site for the protease is flanked by conformation determining regions (Cl and C2) of 1-3 amino acids. Cl and C2 are labelled by fluorophore groups (Fl and F2, respectively) constitioned within 100 angstroms of each other. Additional peptide spacers positioned within 100 angstroms of each other. Additional peptide spacers of 1-50 amino acids (Sl and S2) may also be present (i.e. n and R = 0 or conformation or to monitor protease activity in stored reagents. Changes in protease activity are associated with e.g. arthritis, conrect PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protease activity; fluorphore; detection; fluorogenic; cellular uptake; conformation change.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "Asp residue is modified by the presence of Fl where F1 is the donor fluorophore 5'-carboxytetramethylrhodamine (C2211)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _note= "Cys residue is modified by the presence of F2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                            New fluorogenic peptide(s) with fluorophore at each terminus - for detecting protease(s) in biological samples, emit intense visible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58.9%; Score 33; DB 2; L
50.0%; Pred. No. 1.8e+06;
iive 3; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D-NorFES-A protease inhibitor peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Norleucine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW82094 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                          Claim 15; Page 31; 88pp; English.
                                                                                                                  94US-00331383.
                                                                                    95WO-US013936.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= Nle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                               fluorescence when cleaved.
acetamide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
                                                                                                                                                                           Komoriya A, Packard BS;
                                                                                                                                              (ONCO-) ONCOIMMUNIN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 SVPLSVPC 10
                                                                                                                                                                                                      VPI; 1996-239512/24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AIPXSIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-FEB-1999
                                                                                                                    28-OCT-1994;
                                                                                       27-OCT-1995;
                             WO9613607-A1
                                                           09-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW82094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW82094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
```

ö

```
Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200118238-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified-site
              28-OCT-1994;
                                                     Packard BS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAG73245;
                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAG73245
      ò
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                              AAW82023-W82240 are peptides used in the construction of a fluorogenic composition which is used for the detection of protease activity in biological samples. The products can be used for the detection of conformation changes in nucleic acids, oligosaccharides, proteins, peptides, lipids, phopholipids, glycolipids, glycoproteins, steroids or polymers. In addition, attachment of a hydrophobic group to an necule can be used to enhance uptake by cells. The composition is composed of P = peptide comprising a protease binding site for the protease, F1, F2 peptides = fluorophores where F1 is attached to the amino terminal amino acid and S1, S2 peptides = when present, are peptide spacers where present, is attached to the amino terminal acid, and S2, when present, is attached to the amino terminal acid, and S2, when
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protease binding site; protease; protease indicator; fluorescent signal; detection; protease activity.
                                                                                                                                                                      New fluorogenic compositions - containing 2 fluorophores separated by a peptide comprising a protease binding site, used for detecting protease activity in samples.
                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
where F2 is the acceptor fluorophore rhodamine X acetamide (R492)"
                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                           Score 33; DB 2; Length 9;
Pred. No. 1.8e+06;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                               3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptide backbone of a protease indicator.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Norleucine"
                                                                                                                                                                                                               Disclosure; Page 10; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW46561 standard; peptide; 9 AA.
                                                                        98WO-US003000.
                                                                                          97US-00802981.
                                                                                                                                                                                                                                                                                                                                                                                            58.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-00549008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= Nle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-MAY-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                  Komoriya A, Packard BS;
                                                                                                             (ONCO-) ONCOIMMUNIN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                   SVPLSVPC 10
                                                                                                                                                     WPI; 1998-467579/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                              | | | | | AIPXSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                          Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-OCT-1995;
                                                                        20-FEB-1998;
                                                                                           20-FEB-1997;
                                  WO9837226-A1
                                                    27-AUG-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USS714342-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW46561;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW46561
    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

```
The present peptide contains a protease binding site. It is used to produce novel reagents whose fluorescence increases in the presence of particular proteases. These fluorogenic protease indicators (substrates) provide a high intensity fluorescent signal at a visible wavelength when they are digested by a protease. The fluorogenic indicators have the containing a protease binding site e.g. AMW46520-53, AMW46560. Fl and F2 are peptide spacers e.g. AAW46550. Fl and F2 are fluorophores. Sl and S2 are peptide spacers e.g. AAW46554-58. n, k = 0 or 1. Cl and C2 are conformation-determining regions that introduce a bend into the composition which positions the fluorophores adjacent to each other with a separation of less than 100 Angstrom. When n is 1, S1 is joined to the terminal alpha -amino group of Cl by a peptide bond, and when k is 1, S2 is joined to the terminal carboxy group of C2 by a peptide bond. The protease indicators are used for detecting protease activity in a biological sample. The sample is contacted with the indicator and any change in fluorescence is detected, an increase in fluorescence indicating protease activity
                                                                                                                                                                                                                                                                                                                                Fluorogenic substrates for protease determination - having two closely spaced fluorophores flanking protease binding site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protease detection; peptide cleavage; enzyme activity; fluorogenic; viral infection; cancer metastasis; emphysema; arthritis; thrombosis; haemophilia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 58.9%; Score 33; DB 2; Length 9; Local Similarity 50.0%; Pred. No. 1.8e+06; les 4; Conservative 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note= "modified by fluorophore"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= OTHER
/note= "modified by fluorophore"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAG73245 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Col 23; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protease indicator peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          label= OTHER
94US-00331383.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-SEP-2000; 2000WO-US024882.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                 (ONCO-) ONCOIMMUNIN INC.
                                                                                                                                                                  Komoriya A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 SVPLSVPC 10
                                                                                                                                                                                                                                                   WPI; 1998-158345/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AIPXSIPC
```

; 0

99US-00394019

10-SEP-1999;

```
/note= "F2, where F2 is an acceptor fluorophore rhodamine X acetamide (R492)"
                                                                                                                                                                                                 The present invention describes fluorogenic compositions which can be used for the detection of protease activity. This can be useful as an indicator of viral infection, cancer metastasis, haemophilia, emphysema, thrombosis and arthritis. The fluorogenic compositions comprise a peptide, a peptide spacer and a donor and an acceptor fluorophore. The peptide is cleaved by a protease and the fluorophores can then be detected. The present sequence is one of the peptides described in the exemplification of the invention
                                                                                                         New fluorogenic compositions whose fluorescence level increases in the
                                                                                                                      presence of active proteases, useful for detecting and localizing protease activity in biological samples, particularly in frozen tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protease; indicator; chromophore; H-dimer; fluorescence; absorbance; nuclease; screening; fluorophore; substrate cleavage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "F1, where F1 is a donor fluorophore 5'-
carbocytetramethylrhodamine (C2211)"
                                                                                                                                                                                                                                                                                                                                                    Score 33; DB 4; I
Pred. No. 1.8e+06;
3; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D-NorFES-A protease inhibitor peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note= "norleucine"
                                                                                                                                                                            Example 2; Page 53; 86pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABU60357 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                      58.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-DEC-2000; 2000US-00747287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-DEC-2001; 2001WO-US049781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'label= Nle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-APR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Packard BS, Komoriya A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ONCO-) ONCOIMMUNIN INC
                                                    Packard BS;
                           (ONCO-) ONCOIMMONIN INC
                                                                                                                                                                                                                                                                                                                                                                                                             3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                      AIPXSIPC 9
                                                                               WPI; 2001-389573/41
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200261038-A2
                                                                                                                                                                                                                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-AUG-2002
                                                      Komoriya A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU60357;
                                                                                                                                                    samples
                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
```

```
This invention describes a novel indicator composition (referred as homodoubly labeled compositions) comprising a polypeptide backbone or a nucleic acid backbone joining two chromophores of the same species whereby the chromophores form an H-dimer resulting in quenching of the fluorescence of or a change in the absorbance of the chromophore, a decrease in fluorescence or a change in absorbance of the chromophore, a decrease in fluorescence or a change in absorbance indicates that the indicator is the polypeptide backbone. The indicates that the protease or subport inside a mammalian, yeast or insect cell. The composition bears or bytrophobic group such as Fmoc, 9-fluoreneacetyl group, 1-fluorenear bytrityl (Mtt), 4-methoxylic group, 6-fluoreneacetyl group, 1-fluoreneacetyl group, 1-fluoreneacetol group, 1-fl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therefore they are easily detected in biological samples. The fluorogenic protease indicators utilise high efficiency fluorophores and are able to protease indicators utilise high efficiency fluorophores and are able to the quench is released funching while providing a strong signal when signal allows detection of very low levels of protease activity. Thus the fluorogenic protease indicators are particularly well suited for in situ detection of protease activity. ABWG037-ABWG0477 represent peptides use to illustrate the method described in the disclosure of the invention
                                          Indicator composition comprising polypeptide or nucleic acid backbone joining two same chromophores resulting in quenching of fluorescence of/change in absorbance of chromophores, useful for detecting protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58.9%; Score 33; DB 5; Length 9; 50.0%; Pred. No. 1.8e+06; ive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fluorogenic; protease detection; protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fluorogenic protease indicator peptide #1
                                                                                                                                                                               Example 2; Page 15; 97pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADN88305 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
4, Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
WPI; 2002-698548/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ::| |:||
2 AIPXSIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADN88305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADN88305
     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PXSXXXXXXXXXXXXX
```

ö

Gaps

..

1; Indels Length 9;

US2004096926-A1.

```
11-SEP-2000; 2000WO-US024882.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O'mahony DJ, Lambkin IJ;
                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
                                                Komoriya A;
                        (ONCO-) ONCOIMMUNIN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (OMAH/) O'MAHONY D J. (LAMB/) LAMBKIN I J.
                                                                                                                                                                                                                                                                                                                                                                                                                                               3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-300212/31.
                                                                       WPI; 2004-399235/37.
                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAS00637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200127154-A2
                                                                                                                                                                                                                                                                                                                                                                           Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                              Packard BS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU00643;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU00643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                              The invention relates to a fluorogenic composition (I) for detecting the activity of a protease. (I) is useful for detecting the activity of a protease. (I) is useful for detecting the activity of activity of protease is detected in a histological section, cell culture activity of protease is detected in a histological section, cell culture or tissue section. The cell suspension is derived from the biological sample chosen from tissue, blood, urine, saliva, lymph or biopsy. The sample chosen from tissue, blood, urine, saliva, lymph or biopsy. The protease activity is detected by fluorescence micropolate, absorption microplate reader, fluorescent microplate reader, absorption microplate reader, flow cytometry, cader. (I) is useful for delivering a molecule into a cell, and for screening a test agent for the ability to modulate the activity of the protease activity in biological samples. (I) also acts as a protease inhibitor, thus useful as protease inhibitors. (I) enables detection of the protease activity, and provides a high intensity fluorescent signal at a visible wavelength when they are digested by a protease. The present sequence wavelength when they are digested by a protease. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                         Fluorogenic composition useful for detecting protease activity and test
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 i, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fluorogenic; protease detection; protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58.9%; Score 33; DB 8; I
50.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fluorogenic protease indicator peptide #184.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Mismatches
                                                                                                                                                                                                     substance modulating protease activity.
                                                                                                                                                                                                                            Disclosure, SEQ ID NO 1; 114pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADN88488 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-00802981.
98WO-US003000.
99US-00394019.
                                                       20-FEB-1997, 97US-00802981.
20-FEB-1998, 98WO-US003000.
10-SEP-1999; 99US-00394019.
11-SEP-2000; 2000WO-US024882.
                                  04-JUN-2001; 2001US-00874350.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-2001; 2001US-00874350.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-AUG-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
                                                                                                                                          Packard BS, Komoriya A;
                                                                                                                  (ONCO-) ONCOIMMUNIN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 SVPLSVPC 10
                                                                                                                                                                 WPI; 2004-399235/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        alpxSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2004096926-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-FEB-1997;
20-FEB-1998;
10-SEP-1999;
             20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADN88488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
ADN88488
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
Packard BS, Komoriya A,

Werr, 2004-199218/17.

Example 2, SEO ID NO 184, 114pp; English.

Example 3, SEO ID NO 184, 114pp; English.

Example 4, SEO ID NO 184, 114pp; English.

Example 5, SEO ID NO 184, 114pp
```

```
Claim 2; Page 11; 42pp; English.
                                                                                                                                                                                                                           04-APR-2002; 2002WO-IB003866.
                                                                                                                                                                                                                                   04-APR-2001; 2001US-0281387P.
                                                                                                                                                                                                                                       02-JUL-2001; 2001US-0302591P
                                                                                                                                                                 04-DEC-2003 (first entry)
                                                                                                            5; Conservative
                                                                                                                    1 CISVPLSVPC 10
                                                                                                                           1 CLPVLLAAPC 10
                                                                                                                                                                                                                                                (OMAH/) O'MAHONY D J.
                                                                                                  Query Match
Best Local Similarity
            of the peptides.
                                                                                                                                                                                                          WO2003004646-A2
                                                                                           Sequence 10 AA;
                                                                                                                                                                                                  Unidentified
                                                                                                                                                                                                                   16-JAN-2003.
                                                                                                                                                         ADB88786;
                                                                                                            Matches
                                                                                                                                            ਨੇ
                                                                                                                           a
```

cell a nucleic acid coding for a protein, the level of which or its mRNA is greater than in a non-Peyer's patch cell. The preferred protein of the invention is a transcription factor or a protein that activates a transcription factor or b. c-jun related TF, Jun-D, STAT 3 cranscription factor selected from Jun-B, c-jun related TF, Jun-D, STAT 3 cranscription factor selected from Jun-B, c-jun related TF, Jun-D, STAT 3 cranscription for prote-oncogene, myc related, Mm23-M2, nucleoside chiphosphate kinase B, metastasis reducing protein, and C-est-I proto-oncogene, and p54. The preferred upregulated protein of the invention is selected from clusterin, T-cell surface glycoprotein CDS precursor, HSP 84, and Ca2+ dependent phospholipase A2 precursor and the mRNA is for a protein selected from the group. The method is useful for increasing or decreasing the level of a protein in a Peyer's patch cell, particularly in increasing antigen or vaccine delivery to M cells. The method may also be used to enhance transport of a drug through the gastrolintestinal tract (GIT). This sequence represents a membrane translocating peptide of the Query Match
Best Local Similarity 50.00, 1 CISVPLSVPC 10 CLPVLLAAPC 10 WO2003089458-A2 Sequence 10 AA; modified site modified_site Unidentified L5-APR-2004 30-OCT-2003. invention. ABG75437; RESULT 15 ABG7543 셤 ð ; 0 drugs or DNA across a cell peptides having specific amino motif, analog or peptidomimetic WILDS and their related fragments, motifs, derivatives and analogues are used for enhancing uptake of a pharmaceutically active agent into a cell, into or out of an intracellular compartment and across a cell layer (for example, an epithelial cell layer lining the gastrointestinal tract), either directly or from a pharmaceutically active agent loaded particle, into the circulatory system of an animal. This method is useful for intracellular gene delivery, as a rapid screening method for the length WILD, as a cell-based screening the functional activity of a WILP, as a cell-based screen for assaying the functional activity of a WILP, and characterising the properties of a WILP, for diagnosis of a pathological disorder (by administration of a WILP-active agent complex or WILP-active particle complex comprising a diagnostic agent) and for preventing or treating a pathological disorder Gaps sequence represents a human membrane translocated peptide (MTLP) Peyer's patch cell; non-Peyer's patch cell; transcription factor; upregulated protein; antigen; vaccine delivery; M cell; membrane translocating peptide. ö Score 32; DB 4; Length 10; Pred. No. 1.1e+02; 2; Mismatches 3; Indels Compositions for enhancing uptake of e.g. membrane, comprise membrane translocating acid sequences or a derivative, fragment, Membrane translocating peptide #12 ADB88786 standard; peptide; 10 AA. Brayden 57.1%; O'mahony DJ, Byrne D, WPI; 2003-229409/22

ö

Gaps

ö

Score 32; DB 7; Length 10; Pred. No. 1.1e+02; Mismatches 3; Indels

57.1%; 50.0%;

```
Composition, useful for treating a pathological disease in an animal, comprises a translocating peptide, consisting of a transport peptide, an extended peptide comprising the transport peptide or a transport-active
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to a composition which comprises a translocating peptide, consisting of a transport peptide, an extended peptide comprising the transport peptide or a transport-active fragment
                                                                                                   Membrane translocating peptide; transmembrane transport; enzymatic degradation; gastrointestinal tract.
                                                                                                                                                                                              /note= "modified by epsilon-dansyl"
                                                                                                                                                                                                                                                                                                                                                                                     Pinilla C;
                                                                                                                                                                                                                          /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                     Houghten R,
                                                                                                                                                                    Location/Qualifiers
                                                                              Membrane translocating peptide #12.
ABG75437 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 24; Opp; English.
                                                                                                                                                                                                                                                                                                         21-APR-2003; 2003WO-US012543
                                                                                                                                                                                                                                                                                                                                19-APR-2002; 2002US-00126845
                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                     O'mahony DJ, Lambkin I,
                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2004-034528/03
                                                                                                                                                                                                                                                                                                                                                            (SARL-) SARLAN LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fragment
```

The invention relates to a novel method for increasing the levels of a protein in a Peyer's patch cell. The method comprises delivering to the

Example 6; Page 51; 147pp; English

factor.

Increasing the levels of a protein in a Peyer's patch cell, useful for targeted vaccine or drug delivery, comprises delivering to the Peyer's patch cell a transcription factor or an activator of a transcription

```
of at least 4 amino acids of the transport peptide. The composition is useful in treating a pathological disorder in an animal, as it protects an orally delivered active agent from enzymatic degradation in the gastrointestinal tract (GIT), and promotes absorption across epithelial cells liming the GIT. The present sequence is a polypeptide used in the exemplification of the invention
     888888888
```

Sequence 10 AA;

o; Gaps ö Query Match
Best Local Similarity 50.0%; Pred. No. 1.1e+02;
Matches 5; Conservative 2; Mismatches 3; Indels

1 CISVPLSVPC 10 |: | |: || 1 CLPVLLAAPC 10

ઠ g

Search completed: April 1, 2005, 12:06:08 Job time : 118 secs

OLARU) MARE BLANK (USPIO)

```
14
                                                                                                                                                                                                                                          April 1, 2005, 12:08:21 ; Search time 94 Seconds (without alignments) 35.276 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications AA:*

1: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

6:: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

8: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

15: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

16: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

17: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

18: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          179026
                              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                        US-09-761-636A-13
56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0 Maximum DB seq length: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                     Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		ָ קלו נולו נו	Tďď	Appli	Appli	App,	Appl	Appl	App,	Appl	App ,	App ,		, App
-		1		٦,	٦,	184	13,	71,	101		284,	184	560	794,
Description		Sequence 13,	sednence 14'	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
SUMMARIES	110 - 00 - 01 - 02 - 01 - 01 - 01 - 01 -	110 00 101 00 01 10	02-04-101-020H-14	US-09-747-287-1	US-09-874-350A-1	US-09-874-350A-184	US-10-126-845-13	US-10-126-845-71	US-10-116-275-101	US-10-764-235-13	US-09-932-165-284	US-09-932-165-184	US-09-932-165-560	US-09-932-165-794
DB		١ ،	'n	10	11	11	14	14	15	16	10	10	10	10
% Query Match Length DB)	1	'n	σ	6	6	10	10	10	10	6	10	10	10
* Query Match			T - #/	58.9	58.9	58.9	57.1	57.1	57.1	57.1	56.2	56.2	56.2	56.2
Score	99	5	7.7	33	33	33	32	32	32	32	31.5	31.5	31.5	31.5
Result No.	-	1 (7	m	4	S	9	7	8	6	10	11	12	13

Gaps

.. 0

100.0%; Score 56; DB 9; Length 10; 100.0%; Pred. No. 0.017; ive 0; Mismatches 0; Indels

Query Match 100. Best Local Similarity 100. Matches 10; Conservative

1 CISVPLSVPC 10 ||||||||||| 1 CISVPLSVPC 10

8 8

RESULT 2 US-09-761-636A-14

Sequence 11221, A Sequence 194, App Sequence 1006, App Sequence 1011, App Sequence 1011, App Sequence 890, Appl Sequence 11250, A Sequence 11259, A Sequence	11142111111111111111111111111111111111	. INHIBITOR
US-10-154-884B-11221 US-10-363-791-194 US-09-932-165-679 US-09-932-165-1024 US-09-933-245-1011 US-09-833-245-1011 US-09-855-604-890 US-10-154-884B-11228 US-10-154-884B-11259 US-10-154-884B-11259 US-10-154-884B-11259 US-10-154-884B-11259 US-10-154-884B-11259 US-10-154-884B-11259 US-10-154-884B-11259	US-10-154-884B-11280 US-10-415-014-521 US-10-415-014-537 US-10-415-014-187 US-10-415-014-187 US-10-415-014-187 US-10-415-014-68 US-10-415-014-683 US-10-415-014-683 US-10-852-424-32 US-09-852-424-43 US-09-852-424-43 US-10-154-884B-11276 US-10-154-884B-11276 US-10-154-884B-11276 US-10-154-884B-11276 US-10-154-884B-11276 US-09-922-861-21 US-09-922-861-21	ALIGNMENTS 761636A 761636A GF-C/VEGF PEPTIDOMIMETIC hen et al 5/09/761,636A 60/176,293 60/204,590
4.4.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	6A-13 3, Application US/09 ¹ US20020065218A1 FORMATION: STACKER, Steven STACKER, Steven STACKER, Steven HUGHES, Richard CENDRON, ADGELA INVENTION: VEGF-D/VE RENCE: 1064/48505 AC PRINCE: 1064/48505 AC ILING DATE: 2001-01 LING DATE: 2000-01-18 LING DATE: 2000-01-18 LING DATE: 2000-01-18 LING DATE: 2000-05-16 SEQ ID NOS: 34 PatentIn version 3.11 10 11 11 11 11 11 11 11 11 11 11 11 1
4 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	54 33 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 161-63 161-63 171-63 171-171
	िष्टिलिलेलेलेलेलेलेलेलेलेचेचेचेचेचे	RESULT US-09- US-09- Seque REPRE REP

```
-09-874-350A-184
                                                           JS-09-874-350A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: KONORIVA, AKIRA
APPLICANT: PACKARD, BEVERLY S.
TITLE OF INVENTION: HOMO-DOUBLY LABBLED COMPOSITIONS FOR THE DETECTION OF ENZYME
TITLE OF INVENTION: HOMO-DOUBLY IN BIOLOGICAL SAMPLES
TITLE OF INVENTION: ACTIVITY IN BIOLOGICAL SAMPLES
CURRENT APPLICATION NUMBER: US/09/747,287
CURRENT APPLICATION NUMBER: US/09/749,019
FRIOR FILING DATE: 1999-09-10
FRIOR APPLICATION NUMBER: US/08/802,981
FRIOR APPLICATION NUMBER: PCT/US/08/802
FRIOR AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                               APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
APPLICANT: CHORNON, Angela
TITLE OF INVENTION: VEG9-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ 1D NOS: 34
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58.9%; Score 33; DB 10; Length 9; 50.0%; Pred. No. 1.3e+06; tive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 41.5; DB 9;
Pred. No. 1.3e+06;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Synthetic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY: misc_feature
; LOCATION: (5)._(5)
; OTHER INFORMATION: Xaa is norleucine
US-09-747-287-1
Sequence 14, Application US/09761636A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/09747287
Publication No. US20030207264A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74.1%;
90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 90.0°
"--rhes 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 50.0
Matches 4; Conservative
                                   US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPL-VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-761-636A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AIPXSIPC 9
                                   Patent No. US2002006
GENERAL INFORMATION:
APPLICANT: ACHEN, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 3
US-09-747-287-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

셤

```
Sequence 1, Application US/09874350A

Sequence 1, Application US/09874350A

SEQUENCE 1, INFORMATION:

APPLICANT: NOROXINATION:

APPLICANT: Packard, Beverly

ITLE OF INVENTION: COMPOSITIONS FOR THE DETECTION OF ENZYME ACTIVITY IN BIOLOGICAL S;

ITLE OF INVENTION: COMPOSITIONS FOR THE DETECTION OF ENZYME ACTIVITY IN BIOLOGICAL S;

ITLE OF INVENTION: AND METHODS OF USE THEREOF

FILE REFERENCE: 300-903840US

CURRENT FILING DATE: 2001-06-04

PRIOR APPLICATION NUMBER: PCT/US98/00300

PRIOR APPLICATION NUMBER: PCT/US98/0300

PRIOR PLIING DATE: 1999-02-10

PRIOR PLIING DATE: 1999-09-10

PRIOR PLIING DATE: 1999-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: COMOCING, ALL.

APPLICANT: ROMONING, AKAINA

APPLICANT: ROMONING, AKAINA

APPLICANT: PACKARD

APPLICANT: PACKARD

TITLE OF INVENTION: COMPOSITIONS FOR THE DETECTION OF ENZYME ACTIVITY IN BIOLOGICAL S!

TITLE OF INVENTION: AND METHODS OF USE THEREOF

FILE REFERENCE: 300-903840US

CURRENT PILING DATE: 2001-06-04

PRIOR APPLICATION NUMBER: PCT/US98/00300

PRIOR APPLICATION NUMBER: PCT/US90/24882

PRIOR PRIDE APPLICATION NUMBER: US 09/394,019

PRIOR FILING DATE: 1999-09-10

PRIOR FILING DATE: 1991-02-10

PRIOR FILING DATE: 1991-09-10

PRIOR FILING DATE: 1991-02-10

PRIOR FILING DATE: 1991-03-10

PRIOR FILING DATE: 1991-03-10

PRIOR FILING DATE: 1991-03-10

PRIOR FILING DATE: 1991-03-10

PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         58.9%; Score 33; DB 11; Length 9; 50.0%; Pred. No. 1.38+06; 1.1ve 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
OTHER INFORMATION: Synthetic peptide substrate
NAME/KEY: MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: protease indicator
NAME/KEY: misc feature
LOCATION: (5)...(5)
OTHER INFORMATION: Xaa is norleucine (Nle)
US-09-874-350A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 184, Application US/09874350A Publication Vo. US20040096926A1 GENERAL INFORMATION: APPLICANT: Oncoimmunin, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ::| |:||
2 AIPXSIPC 9
```

Mon Apr

ઠ

ö

```
; OTHER INFORMATION: Listed in Table titled "Peptides that Target to and/or Enhance Up ; OTHER INFORMATION: take Across the GIT" US-10-116-275-101
                                                                                                                                                                                                                                                                                                                     APPLICANT: Blan Pharmaceutical Technology
APPLICANT: Blan Pharmaceutical Technology
APPLICANT: Barayden, David
APPLICANT: Barayden, David
APPLICANT: Barayden, David
APPLICANT: Lambkin, Imelda
APPLICANT: Lambkin, Imelda
APPLICANT: Lambkin, Imelda
APPLICANT: Lambkin, Lisa
TITLE OF INVENTION: Genetic Analysis of Peyer's Patches and M Cells and Methods and
TITLE OF INVENTION: Compositions Targeting Peyer's Patches and M Cell Receptors
FILE REFERENCE: E1067/20087
CURRENT APPLICATION NUMBER: US/10/116,275
CURRENT FILING DATE: 2002-10-04
NUMBER OF SEQ ID NOS: 349
SOFTWARE: PatentIn version 3.1
SEQ ID NO 101
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 13, Application US/10764235

Sequence 13, Application US/10764235

Publication No. US20040138132A1

GENERAL INFORMATION:
APPLICANT: O'Mahony, Daniel J.
APPLICANT: Lambkin, Immeda J.
TITLE OF INVENTION: MEMBRANE TRANSLOCATING PEPTIDE DRUG DELIVERY SYSTEM
FILE REFERENCE: P26,479-B USA
CURRENT APPLICATION NUMBER: US/10/764,235
CURRENT FILING DATE: 2004-01-23
PRIOR APPLICATION NUMBER: 09/671,089
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: 09/27

RIOR APPLICATION NUMBER: 60/156,246
PRIOR APPLICATION NUMBER: 09/27

NUMBER OF SEQ ID NOS: 59

SOFTWARE: Patentin version 3.1

SEQ ID NO 13

LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 57.1%; Score 32; DB 16; Length 10 Best Local Similarity 50.0%; Pred. No. 1.1e+02; Matches 5; Conservative 2; Mismatches 3; Indels
     Pred. No. 1.1e+02;
2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; OTHER INFORMATION: membrane translocating peptide, cyclic
US-10-764-235-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57.1%; Score 32; DB 15; 50.0%; Pred. No. 1.1e+02; tive 2; Mismatches 3;
                                                                                                                                                                                                                                                   Sequence 101, Application US/10116275
Publication No. US20030211476A1
GENERAL INFORMATION:
  ilarity 50.0%; Pr
Conservative 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 50.0
hes 5; Conservative
                                                                              1 CISVPLSVPC 10
                                                                                                                1 CLPVLLAAPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |: | |: ||
1 CLPVLLAAPC 10
     Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                    US-10-116-275-101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                 Sequence 13, Application US/10126845
Publication No. US20030181367A1
GENERAL INFORMATION;
APPLICANT: O'Mahony, Daniel J.
APPLICANT: O'Mahony, Daniel J.
APPLICANT: Lambkin, Imedda J.
APPLICANT: Pinilla, Clemencia
APPLICANT: Houghten, Richard
APPLICANT: APPLICANTON: MEMBRANE TRANSLOCATING PEPTIDE DRUG DELIVERY SYSTEM
FILLE REFERENCE: 2002-10-15
CURRENT PILING DATE: 2002-10-15
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin version 3.1
SEQ ID NO 13
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:

APPLICANT: O'Mahony, Daniel J.

APPLICANT: O'Mahony, Daniel J.

APPLICANT: Dinilla, Clemencia

APPLICANT: Pinilla, Clemencia

APPLICANT: Pinilla, Clemencia

TITLE OF INVENTION: MEMBRANE TRANSLOCATING PEPTIDE DRUG DELIVERY SYSTEM

FILE REFERENCE: B1067/20058

CURRENT APPLICATION NUMBER: US/10/126,845

CURRENT FILING DATE: 2002-10-15

NUMBER OF SEQ ID NOS: 119

SOFTWARE: Patentin version 3.1
                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 14; Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 10;
                                                                                                 Score 33; DB 11; Length 9;
Pred. No. 1.3e+06;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: membrane translocating peptide, cyclic US-10-126-845-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 32; DB 14;
Pred. No. 1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57.1%; Score 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LOCATION: (1). T(10)
; OTHER INFORMATION: D form amino acid
US-10-126-845-71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-126-845-71
; Sequence 71, Application US/10126845
; Publication No. US20030181367A1
; LOCATION: (5)∴(5)
; OTHER INFORMATION: X is norleucine
US-09-874-350A-184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: D form peptide
                                                                                                   58.9%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 50.0%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                     4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CLPVLLAAPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: MISC_FEATURE
                                                                                                                                                                                                       3 SVPLSVPC 10
                                                                                                                                                                                                                                    ::| |:||
2 AIPXSIPC 9
                                                                                                   Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                               RESULT 6
US-10-126-845-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
```

요

ö

ö

```
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                US-09-932-165-560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-932-165-794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                APPLICANT: AFAR, DOUGLAS
APPLICANT: AFAR, DOUGLAS
APPLICANT: LEVIN, ELANA
APPLICANT: LEVIN, ELANA
APPLICANT: LEVIN, ELANA
APPLICANT: GE, WANGMAO
APPLICANT: JAKOBOVITS, AND
TITLE OF INVENTION: NUCLEIC ACIDS AND CORRESPONDING PROTEINS ENTITLED
TITLE OF INVENTION: DATECTION OF CANCER
TITLE OF INVENTION: DATECTION OF CANCER
FILE REPERENCE: 51158-20014.00
CURRENT APPLICATION NUMBER: US/09/932,165
CURRENT APPLICATION NUMBER: 60/226,329
PRIOR PILING DATE: 2000-08-17
PRIOR PILING DATE: 2000-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: CHALLITA-EID, PIA M.
APPLICANT: SAFERA, DOUGLAS
APPLICANT: SAFERA, DOUGLAS
APPLICANT: APPLICANT: BARR, DOUGLAS
APPLICANT: BELAN, DOUGLAS
APPLICANT: LEVIN, ELANA
APPLICANT: HUBERT, RENE
APPLICANT: JAKOBOVITS, AYA
ITILE OF INVENTION: 83PPH3 AND CATF2EII USEFUL IN TREATMENT AND
ITILE OF INVENTION: BAFF13 AND CATF2EII USEFUL IN TREATMENT AND
ITILE OF INVENTION: DETECTION OF CANCER
FILE REFERENCE: 51158-20014.00
CURRENT FILING DATE: 2001-08-17
PRIOR PAPLICATION NUMBER: 60/226,329
PRIOR FILING DATE: 2000-08-17
PRIOR PILING DATE: 2000-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 56.2%; Score 31.5; DB 10; Length 9; Best Local Similarity 60.0%; Pred. No. 1.3e+06; Matches 6; Conservative 2; Mismatches 1; Indels
                                                                                                                                                             ; Sequence 284, Application US/09932165; Publication No. US20030134784A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 184, Application US/09932165
Publication No. US20030134784A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                  APPLICANT: RAITANO, ARTHUR
APPLICANT: CHALLITA-EID, PIA M.
APPLICANT: FARIS, MARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 1508
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: RAITANO, ARTHUR
APPLICANT: CHALLITA-EID, F
APPLICANT: FARIS, MARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 1508
SOFTWARE: Patentin Ver. 2.1
                             |: | |: ||
1 CLPVLLAAPC 10
CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |:: ||| ||
1 CLT-PLSFPC 9
                                                                                                              RESULT 10
US-09-932-165-284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-932-165-284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-932-165-184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 184
                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                       DP
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
..
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 794, Application US/0932165

Publication No. US20030134784A1

GENERAL INFORMATION:
APPLICANT: RAITANO, ARTHUR
APPLICANT: FRAIS, MARY
APPLICANT: SAFFRAN, DOUGLAS
APPLICANT: AFFRAN, DOUGLAS
APPLICANT: LEVIN, ELANA
APPLICANT: HUBERT, RENE
APPLICANT: HUBERT, RENE
APPLICANT: HUBERT, RENE
APPLICANT: JAKOBOVITS, AYA
ITILE OF INVENTION: NUCLEIC ACIDS AND CORRESPONDING PROTEINS ENTITLED
ITILE OF INVENTION: BETETION OF CANCER
ITILE OF INVENTION: DETECTION OF CANCER
ITILE OF INVENTION: DETECTION OF CANCER
ITILE OF INVENTION: PETETION OF CANCER
                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: RALIANO, ARTHURA,
APPLICANT: CHALLITA-EID, PIA M.
APPLICANT: BARIS, MARY
APPLICANT: BARRA, DAN'BUGLAS
APPLICANT: AFAR, DAN'BUGLAS
APPLICANT: AFAR, DAN'BUGLAS
APPLICANT: HUNBER, RENE
APPLICANT: HERE
APPLI
FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-09-932-165-184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-09-932-165-560
                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                56.2%; Score 31.5; DB 10; Length 10; 60.0%; Pred. No. 1.3e+02; tive 2; Mismatches 1; Indels 1
                                                                                                                                                                                    Length 10;
                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                           Score 31.5; DB 10;
Pred. No. 1.3e+02;
2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 560, Application US/09932165
Publication No. US20030134784A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: RAITANO, ARTHUR
APPLICANT: CHALLITA-EID, PIA M.
APPLICANT: PARIS, MARY
                                                                                                                                                                                56.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                           Query Match
Best Local Similarity 60.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 60.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                  1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                             |:: ||| ||
1 CLT-PLSFPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:: ||| ||
1 CLT-PLSFPC 9
```

```
RESULT 15

US-10-363-791-194

Sequence 194, Application US/10363791

Sequence 194, Application Wolfold US20040029197A1

Sequence 194, Application Wolfold US20040029197A1

SEQUENCE INFORMATION:

APPLICANT: TATEMOTO, Mo. US20040029197A1oru

APPLICANT: SAHARA, Hirocki

TITLE OF INVENTION: A novel human cancer/testis-associated gene thereof

FILE REFERENCE: 4439-4006

CURRENT APPLICATION NUMBER: US/10/363,791

CURRENT FILING DATE: 2003-03-07

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 227

SOFTWARE: Patentin version 3.2

LENTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55.4%; Score 31; DB 15; Length 10; 83.3%; Pred. No. 1.6e+02; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: April 1, 2005, 12:18:44 Job time : 94 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 5; Conserv
             2 CLSVPVS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 PLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PLSAPC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-363-791-194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 11221, Application US/10154884B
Publication No. US20040005561A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Retter, Marc Corporation
APPLICANT: Retter, Marc Corporation
APPLICANT: Corixa Corporations and Methods for the Detection, Diagnosis and Therapy
TITLE OF INVENTION: Compositions and Malignancies
FILE REFERENCE: 014058-013521US
CURRENT APPLICATION NUMBER: US/10/154,884B
CURRENT FILING DATE: 2002-05-23
PRIOR APPLICATION WUMBER: US 60/186,126
PRIOR PILING DATE: 2000-03-01
                                                                                                                                                                                                                                                                                                                                                                                                                      ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif US-09-932-165-794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 11290
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                  Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 31; DB 15; Length 9;
Pred. No. 1.3e+06;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                            Score 31.5; DB 10; Length
Pred. No. 1.3e+02;
2; Mismatches 1; Indels
CURRENT APPLICATION NUMBER: US/09/932,165
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: 60/226,329
PRIOR FILING DATE: 2000-08-17
NUMBER OF SEQ ID NOS: 1508
SOFTWARE: Patentin Ver: 2.1
SEQ ID NO 794
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2000-03-01
PRIOR PELING DATE: 2000-03-17
PRIOR APPLICATION NUMBER: US 60/200,545
PRIOR PILING DATE: 2000-04-27
PRIOR FILING DATE: 2000-04-28
PRIOR PILING DATE: 2000-04-28
PRIOR PELING DATE: 2000-04-28
PRIOR PELING DATE: 2000-04-28
PRIOR PELING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: US 60/200,799
PRIOR APPLICATION NUMBER: US 60/202,084
PRIOR PILING DATE: 2000-05-01
PRIOR APPLICATION NUMBER: US 60/202,084
PRIOR PILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 60/202,084
PRIOR APPLICATION NUMBER: US 60/202,084
PRIOR PILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 60/218,950
PRIOR PILING DATE: 2000-05-22
PRIOR PILING DATE: 2000-05-22
PRIOR PILING DATE: 2000-05-22
PRIOR PILING DATE: 2000-07-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55.4%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 60.0%;
Matches 6; Conservative 7
                                                                                                                                                                                                            TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |:: ||| ||
1 CLT-PLSFPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens
US-10-154-884B-11221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CISVPLS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
US-10-154-884B-11221
                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

Gaps

ö

THIS PAGE BLANK (USPTO)

```
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; MOLECULE TYPE: peptide US-08-526-710-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLPVASC 7
US-08-526-710-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
 н
                                                                                                                                                                                                                                   RESULT 1
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 21, Appl
Sequence 21, Appl
Sequence 21, Appl
Sequence 21, Appl
Sequence 1375, Ap
Sequence 1375, Ap
Sequence 1379, Ap
Sequence 1799, Ap
Sequence 1799, Ap
Sequence 1799, Ap
Sequence 1799, Ap
Sequence 1374, Ap
Sequence 1387, Ap
Sequence 1382, Ap
Sequence 1382, Ap
Sequence 1382, Ap
Sequence 1382, Ap
Sequence 2720, Ap
Sequence 2720, Ap
Sequence 2720, Ap
Sequence 2155, Ap
Sequence 2155, Ap
Sequence 2156, Ap
Sequence 2156, Ap
                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                 April 1, 2005, 11:32:13; Search time 43 Seconds (without alignments) 12.152 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                     /cgn2_6/ptodata/1/iaa/SA_COMB.pep:*
/cgn2_6/ptodata/1/iaa/SB_COMB.pep:*
/cgn2_6/ptodata/1/iaa/GA_COMB.pep:*
/cgn2_6/ptodata/1/iaa/GCOMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-526-710-21
US-09-226-985-21
US-09-227-906-21
US-09-227-906-21
US-09-127-906-21
US-09-187-859-1375
US-09-187-859-1375
US-09-187-859-1799
US-09-187-859-1799
US-09-187-859-1799
US-09-187-859-1799
US-09-187-859-1799
US-09-187-859-1790
US-09-187-859-1392
US-09-839-5428-1392
US-09-839-5428-1392
US-09-839-5428-1355
                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                               513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                               OM protein - protein search, using sw model
                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                              Patents AA:*
                                                                                                          US-09-761-636A-11
42
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length
                                                                                                                              1 CVPLTSC 7
                                                                                                                                                                                                                      Minimum DB seq length: 0 Maximum DB seq length: 7
                                                                                                                                                                                                                                                                                              Issued
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                    Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                             Database
                                                                    .
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                   Run
```

```
ö
 3637, Ap
4041, Ap
418, Ap Ap
35, Appl
35, Appl
26, Appl
26, Appl
26, Appl
26, Appl
26, Appl
360, Ap
3606, Ap
3606, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                      Sequence
Sequence
Sequence
                                                                                                          Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                       Sequence
Sequence
                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Rucalahit, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Method of Identifying Molecules That
TITLE OF INVENTION: Home to a Selected Organ In Vivo
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cambrels: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
COUNTRY: United States
ZIP: 92125
CONPUTER: IBM PC compatible
COUNTRY: IBM PC compatible
OORBATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURSSIFICATION NUMBER: US/08/526,710
FILING DATE: 11-SEP-1995
CLASSIFICATION NUMBER: US/08/526,710
REPERRANCE/DOCKET NUMBER: 9-LJ 1779
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 31; DB 1; Length 7; Pred. No. 4.1e+05; Mismatches 1; Indels
US-09-839-542B-3637
US-09-839-542B-4041
US-09-65-36-82-1826
US-09-665-362A-35
US-09-665-362A-35
US-09-665-637-35
US-09-665-637-35
US-09-665-637-35
US-09-665-637-35
US-09-187-859-1888
US-09-187-859-1888
US-09-187-859-1888
US-09-187-859-1888
US-09-187-859-1888
US-09-187-859-1888
US-09-187-859-1888
US-09-187-859-18606
US-09-183-542B-1888
US-09-183-542B-1888
US-09-183-542B-1888
US-09-183-542B-1888
                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 21, Application US/08526710; Patent No. 5622699; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.8%; 57.1%;
```

```
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 21:
SEGUIENCE CHARACTERISTICS:
LENGTH: 7 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 57.1.
1. See 1. Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide US-09-226-985-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |:|: ||
1 CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTSC 7
                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-227-906-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 21, Application US/09226985
Patent No. 6226832
GENERAL INFORMATION:
APPLICANT: Rucelahti, Erkki
APPLICANT: Rucelahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Molecules That Home to a Selected Organ In Vivo
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
CONNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
                                                                            GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
APPLICANT: Rasalini, Renata
TITLE OF INVENTION: Method of Identifying Molecules That
TITLE OF INVENTION: Home to a Selected Organ In Vivo
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.8%; Score 31; DB 3; Length 7; 57.1%; Pred. No. 4.1e+05; Live 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/862,855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:

CLASSIFICATION: 424

PRIOR APPLICATION: 424

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/526,710

FILING DATE: 11-SEP-1995

PRIOR APPLICATION NUMBER: US 08/813,273

FILING DATE: 10-MAR-1997

ATTORNEY, AGENT INFORMATION:

NAME: Campbell, Cathryn A.

REGISTRATION NUMBER: 31,815

REGISTRATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELEPHONE: (619) 535-9001

TELEPHONE: (619) 535-8949

INFORMATION FOR SEQ ID NO: 21:

FENDENCH CHARACTERISTICS:
RESULT 2
US-08-862-855-21
; Sequence 21, Application US/08862855
; Patent No. 6068829
                                                                                                                                                                                                                                                                CITY: San Diego
STATE: California
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 92122
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:|: ||
CLPVASC 7
                                                                                                                                                                                                                                                                                                                COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-862-855-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-09-226-985-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 21, Application US/09227906

Sequence 21, Application US/09227906

Patent No. 6306365

GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Method of Identifying Molecules That
TITLE OF INVENTION: Home to a Selected Organ in Vivo
NUMBER OF SEQUENCES: 44

CORRESPONDENCE ADDRESS:
ADDRESSER: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Disgo
CUNTRY: United States
STREET: 92122
COMPUTER: EADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARR: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
PILICATION NUMBER: US/09/227,906
FILIGATION DATA:
COMPUTER: COMPUTER: UNIVERSET OF THE COMPUTER:
COMPUTER: PATENTING DATA:
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73.8%; Score 31; DB 3; Length 7; 57.1%; Pred. No. 4.1e+05; Live 2; Mismatches 1; Indels
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/226,985
                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE: 11-SEP-1995
PRIOR APPLICATION NUMBER: US 08/813,273
FILING DATE: 10-MAR-1997
PRIOR APPLICATION NUMBER: US 08/862,855
FILING DATE: 23-MAY-1997
ATTORNEY/AGENT INPORMATION:
NAME: Campbell, Cathryn A.
REGISTATION NUMBER: 31,815
REFERENCE/POCKET NUMBER: 31,815
REFERENCE/POCKET NUMBER: 31,815
REGISTATION NUMBER: 31,815
REFERENCE/POCKET NUMBER: P-LJ 3423
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/526,710
FILING DATE: 11-SEP-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
FILING DATE: 10-PAR-1997
```

```
Sequence 1375, Application US/09187859A
; Sequence 1375, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
; APPLICANT: Gour, Barbara J.
; TITLE OF INVENTION: CADHERIN-MEDIATED FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
; FILE REPRENCE: 100066.407C1
; CURRENT APPLICATION NUMBER: US/09/187,859A
; CURRENT PILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: BLaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.40701
CURRENT APPLICATION NUMBER: US/09/839,542B
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NOS: 4052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
OTHER INFORMATION: Representative cyclic modulating agent based on
CTHER INFORMATION: cadherin-7 cell adhesion recognition sequence
US-09-187-859-1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ) OTHER INFORMATION: Representative cyclic modulating agent based on , OTHER INFORMATION: cadherin-7 cell adhesion recognition sequence US-09-839-542B-1375
    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61.9%; Score 26; DB 3; Length 7; 57.1%; Pred. No. 4.18+05; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          h 61.9%; Score 26; DB 4; Length 7; Similarity 57.1%; Pred. No. 4.1e+05; 4; Conservative 0; Mismatches 3; Indels
    Indels
    ;
    2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-839-542B-1375
; Sequence 1375, Application US/09839542B
; Patent No. 6569996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 57.1.
    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 4; Conserv
                                             1 CVPLTSC
                                                                     |:|: ||
1 CLPVASC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CEPKTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CEPKTGC
                                                                                                                                                                      US-09-187-859-1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Ruoslahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Molecules That Home to a Selected Organ
TITLE OF INVENTION: In Vivo
CORRESPONDENCE: 46
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                               Score 31; DB 3; Length 7;
Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.8%; Score 31; DB 4; Length 7; 57.1%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/228,866
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E: Campbell & Flores LLP
4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                             2; Mismatches
                                                                            NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERNICE/DOCKET NUMBER: P-LJ 3424
TELECOMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8049
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
                   APPLICATION NUMBER: US 08/862,855
FILING DATE: 23-MAY-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: California
COUNTRY: United States
ZIP: 92122
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS_DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/526,708
FILING DATE: 11-SEP-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 21, Application US/09228866
Patent No. 6743892
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,81
REFERENCE/DOCKET NUMBER: P
                                                                                                                                                                                                                                                                                                                                                                                   73.8%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                           4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: both
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: peptide
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                        TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |:|: ||
1 CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
US-09-228-866-21
                                                                                                                                                                                                                                                                                                                                          US-09-227-906-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-228-866-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
```

ö

```
US-09-839-542B-1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-839-542B-3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
Sequence 1799, Application US/09187859A
; Sequence 1799, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
; APPLICANT: GOUT, Blaschuk, Orest W.
; TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
; TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
; FILLE REFERENCE: 100086.407C1
; CURRENT APPLICATION NUMBER: US/09/187,859A
; CURRENT FILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: PatentIN Ver. 2.0
; SEQ ID NO 1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-187-859-3971

Sequence 3971, Application US/09187859A

Patent No. 6358920.

GENERAL INFORMATION:

APPLICANT: Blaschuk, Orest W.

APPLICANT: GOUX. BARDARA J.

TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS

FILLS REFERENCE: 100086-40701

CURRENT APPLICATION NUMBER: US/09/187,859A

CURRENT FILING DATE: 1938-11-06

NUMBER OF SEQ ID NOS: 4052

SOFTWARE: Patentin Ver. 2.0

LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4047, Application US/09187859A

Patent No. 6388920

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-12 cell adhesion recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-14 cell adhesion recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 25; DB 3; Length 7; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59.5%; Score 25; DB 3; I 57.1%; Pred. No. 4.1e+05; ative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 59.5
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-187-859-3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-187-859-4047
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-187-859-1799
US-09-187-859-1799
                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3971
Sequence 3971
Sequence 3971
Sequence 3971
Sequence 3971
Sequence 3971
Space 3971
Spac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1799, Application US/09839542B

Patent No. 656996

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPPOUNDS
FILE REPERENCE: 100086.40701
CURRENT PILLING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PATENTIN VEY: 2.0
SEQ ID NO 1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Representative cyclic modulating agent based on ; OTHER INFORMATION: cadherin-12 cell adhesion recognition sequence US-09-839-542B-1799
                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-09-187-859-4047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            59.5%; Score 25; DB 4; Length 7; 57.1%; Pred. No. 4.1e+05; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59.5%; Score 25; DB 3; I 57.1%; Pred. No. 4.1e+05; iive 0; Mismatches 3;
CURRENT APPLICATION NUMBER: US/09/187,859A CURRENT FILING DATE: 1998-11-06 NUMBER OF SEQ ID NOS: 4052 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 4047 LENGTH: 7
                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 57.1.
اتام 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 59.5
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDPKTGC 7
```

ហ

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3574, Application US/09187859A

Sequence 3574, Application US/09187859A

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT PILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion OTHER INFORMATION: recognition sequence
                                      OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-14 cell adhesion recognition sequence US-09-839-542B-3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: PB-cadherin cell adhesion recognition sequence
                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                Query Match 59.5%; Score 25; DB 4; Length 7; Best Local Similarity 57.1%; Pred. No. 4.1e+05; Matches 4; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 25; DB 4; Length 7; Pred. No. 4.1e+05; 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.1%; Score 24; DB 3; Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT ORGANISM: Artificial Sequence
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 59.5
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                 CVPLTSC 7
                                                                                                                                                                                                                                     CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CDPKTGC 7
                                                                                                                                                                                                                                                                                                                US-09-839-542B-4047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-839-542B-4047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-187-859-3574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-187-859-3574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 3574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REPERENCE: 100066.407D1
CURRENT APPLICATION NUMBER: US/09/839,542B
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NOS: 4052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion OTHER INFORMATION: recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                        ö
ilarity 42.9%; Pred. No. 4.1e+05; Conservative 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.1%; Score 24; DB 4; Length 7; 42.9%; Pred. No. 4.1e+05; tive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: April 1, 2005, 11:40:32
Job time : 44 secs
                                                                                                                                                                                                                          Sequence 3574, Application US/09839542B Patent No. 6569996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 3; Conserve
  Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTSC 7
                                                                     1 CVPLTSC 7
                                                                                                1 CDPVSGC 7
                                                                                                                                                                                                            US-09-839-542B-3574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-839-542B-3574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
```

THIS PAGE BLANK (USPTO)

```
MHC H2-L antigen major protein anti
R-phycoerythrin ga
laminin Bl - weste
schwannomin - mous
tyrosine-melanocyt
glycogen phosphory
Y protein - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glycoprotein compo
R-phycoerythrin be
R-phycoerythrin al
metallothionein-A
Ig mu chain V regi
pallidipin - assas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protamine P1 - gor
MHC H2-K-k cell su
T-cell receptor be
T-cell receptor ga
Na+/K+-exchanging
contraction-inhibi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cadmium-binding pe
acid proteinase li
actin I - malaria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hemoglobin, extrac
phosphoprotein, bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               halo-toxin - Pseud
lipopeptide WS1279
angiotensin-conver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R-phycoerythrin al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                 1, 2005, 11:46:34 ; Search time 39 Seconds (without alignments) 14.803 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283416 segs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                           OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  165546
EE62274
EE62274
1494211
154357
AA02235
137264
BA33882
BA33882
A33882
A33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-12
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq length: 0
seq length: 6
                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
No.
```

30 31 32 33 33 34 35 36 36 37 37 40 41 42 44 45 47 47 47 47 47 47 47 47 47 47 47 47 47	9 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	23 23 23 23 23 23 23 24 25 25 26 26 26 27 28 27 28 28 28 28 28 28 28 28 28 28 28 28 28	3.7 3.7 1.11 1.11 1.11 1.11 1.11 1.11 1.	66 15 1 16 16 16 16 16 16 16 16 16 16 16 16 1	tth tre-	1789 1789 1789 1789 1789 1789 1789 1789	696 564 990 900 900 901 902 903 911 911 912 913 913 914 916 917 918 918 918 918 918 918 918 918	yypotr Yypotr Procte Proce Pro	action-inhibi hetical TCL3 ine protein YCL3 dyl-dipeptida dyl-dipeptida dyl-dipeptida tensin-conver hetical colla ilar protein olin - Atlant hetical colla ilberin - ass liberin - ass liberin - ass liberin - ass liberin - colla liberin - ass	ក កព្តល់ដូច ក្នុងត្រូប <u>ត</u>	
Query Match Best Local Matches Qy 1	Match Sinocal	imila ; Co ; CVP 3 CVP 4	h Similarity 100 3; Conservative 1 CVP 3	52.6%; 100.0%; Live (. 0 %	S ; 8	Score 20; DB 2; Length 5; Pred. No. 2.88+05; D; Mismatches 0; Indels	; o 81	Gaps	; o	
RESULT 2 165546 MHC H2-L antigen C;Species: Mus mu C;Date: 02-Aug-15 C;Accession: 1652 R;Kimura, A.; 181 Cell 44, 261-272, A;Title: Detailed A;Reference numbe A;Reference numbe A;Accession: 1655 A;Accession: 1655 A;Accession: 1655 A;Accession: 1655 A;Ccession: 1655 A;Ccession: 1655 A;Ccession: 1655 A;Ccession: 1655 A;Ccession: 1655 A;Ccession: 1655	antige as: Mus io.2-Aug- io. 1 261-27 261-27 261-27 Detail ion: 16 ion: 16 ion: 16 ion: 16 ion: 16 ion: 16 ion: 16 ion: 16	n - 1996 1996 5546 2, 1996 2, 2, 3 6d a 1967: 1987: 1088:	mouse culus (5 #sequ 5 1 A.; 21, A.; 2986 analysi 15277 5 5 17 1 Kr 1827 1835 1835	(fragment) house mous lence_revis Le Bail, s of the T B; MUID:86 ranslated f	gme e m Lre th UID ate	ent) mouse evisi il, C ne mc D:861 ed fr	RESULT 2 I65546 MHC H2-L antigen - mouse (fragment) C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Accession: I65546 R;Kimura, A.; Israel, A.; Le Bail, O.; Kourilsky, P. Call 44, 261-272, 1986 A;Title: Detailed analysis of the mouse H-2Kb promoter: Enhar A;Reference number: I52778; MUID:86106202; PMID:3510743 A;Accession: I65546 A;Etauts: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-6 <res> A;Cross-references: GB:M12483; NID:g199565; PIDN:AAA39663.1;</res>	lge lcer	05-Nov-1999 -like sequences		and their
Query Me Best Loc Matches Qy Db	ia]	imila ; Co VPLT VPCT	39. Similarity 75. 3; Conservative 2 VPLT 5 2 VPCT 5	39. 75. Itive	₩ ₩	15. 15.	Score 15; DB 2; Length 6. Pred. No. 2.8e+05; 0; Mismatches 1; Indele	; e 0 ;	Gaps	·,	
RESULT 3 E60274 major pr C;Specie	otein a	ntic	gen MPT :erium	.63 - tube	My rcu	/cobe	RESULT 3 E60274 major protein antigen MPT63 - Mycobacterium tuberculosis (fragment) C;Species: Mycobacterium tuberculosis	ragment)			

Gaps

ö

0; Indels

Length 4;

```
Without D.P.; Nechiporuk, T.; Pulst, S.
Hum. Mol. Genet. 3, 1075-1079, 1994
A; Filtle: Alternative transcripts in the mouse neurofibromatosis type 2 (NF2) gene are cor
A; Reference number: I54357; MUID:95072570; PMID:7981675
A; Accession: I54357
A; Retauts: preliminary; translated from GB/EMBL/DDBJ
A; Residues: 1-4 < RES>
A; Rosidues: 1-4 < RES>
A; Cross-references: GB:L28838; NID:9454836; PIDN:AAA57150.1; PID:g601923
A; Genetics:
A; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Bos primigantus taurus (cattle)
C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text_change 18-Aug-2000
C;Accession: A32039
J. Biol. Chem. 264, 2175-2179, 1989
A;Title: Isolation of tyrosine-melanocyte-stimulating hormone release-inhibiting factor 1
A;Reference number: A32039; MUID:89123285; PMID:2563371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Glycogen phosphorylase (EC 2.4.1.1), muscle - mullet (Liza ramada) (fragment)
N/Alternate names: glycogen phosphorylase b
C;Species: Liza ramada
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004
C;Accession: A60521
C;Accession: A60521
C;Accession: A60521
C;Attle: Durification and characterization of glycogen phosphorylase B from skeletal musc
A;Reference number: A60521; MUID:90227907; PMID:2109669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Molecule type: protein
A,Residues: 1-5 <BON>
C,Keywords: glycosyltransferase; hexosyltransferase; phosphoprotein
F;3/Binding site: phosphate (Ser) (covalent) (by phosphorylase b kinase) #status experime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              release-inhibiting factor 1 - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,Molecule type: protein
A,Residues: 1-4 <HOR>
A,Experimental source: brain
C,Superfamily: unassigned animal peptides
C,Keywords: amidated carboxyl end
F;4/Modified site: amidated carboxyl end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.9%; Score 11; DB 2; Length 4; 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.9%; Score 11; DB 2; Length 5; 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                28.9%; Score 11; DB 2; Lv 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tyrosine-melanocyte-stimulating hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 28.9
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 28.9
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 VP 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 VP 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 PL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 PL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 VP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
C;Date: 11-Dec-1992 #sequence_revision 11-Dec-1992 #text_change 30-Sep-1993
C;Accession: E60274
R;Nagal, S.; Wiker, H.G.; Harboe, M.; Kinomoto, M.
Infect. Immun. 59, 372-382, 1991
A;Title: Isolation and partial characterization of major protein antigens in the culture A;Reference number: A60274; MUID:9109989; PMID:1898899
A;Accession: E60274
A;Status: preliminary
A;Residues: 1-5 <NAG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Mus spretus (western wild mouse)
C;Date: 02-Uul-1996 #sequence_revision 02-Uul-1996 #text_change 05-Nov-1999
C;Accession: 149421
R;Ko, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Takahashi, N.; Maezaki, Y.; Nadeau, J.H
R;Ko, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Takahashi, N.; Maezaki, Y.; Nadeau, J.H
R;Ko, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Pakahashi, N.; Maezaki, Y.; Nadeau, J.H
R;Ko, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Pakahashi, N.; Nadeau, J.H
R;Ko, M.S.; Maezaki, MUD:94319082; PMID:8043949
                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R-phycoerythrin gamma-A chain - red alga (Gastroclonium coulteri) (fragment) C;Species: Gastroclonium coulteri C;Species: Gastroclonium coulteri C;Date: 0.7-Mar-1988 #sequence_revision 0.7-Mar-1988 #text_change 23-Mar-1993 C;Accession: F22565 R;Klotz, A.V.; Glazer, A.N. J. Biol. Chem. 260, 4856-4863, 1985 A;Fitle: Characterization of the bilin attachment sites in R-phycoerythrin. A;Reference number: A22565; MUID:85182601; PMID:3886644 A;Molecule type: protein A;Residues: 1-5 <KLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PID:9642829
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Moleoule type: DMA
A;Residues: 1-6 <RES>
A;Cross-references: EMBL:U05736; NID:g497073; PIDN:AAB60477.1;
                                                                                                                                                                                                                                                                               Score 14; DB 2; Length 5;
Pred, No. 2.86+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36.8%; Score 14; DB 2; Length 6; 100.0%; Pred. No. 2.8e+05; artive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36.8%; Score 14; DB 2; Length 5; 100.0%; Pred. No. 2.8e+05; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                laminin Bl - western wild mouse (fragment)
                                                                                                                                                                                                                                                                                                        36.8%;
                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 66.7
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      schwannomin - mouse (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                3 PLT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: I49421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 TC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
```

ö

Gaps

ö

ö

Gaps

; 0

4 05:33:00 2005

Mon Apr

```
Gispecies: Oncorhynchus mykiss (rainbow trout)
Cispecies: Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
Cispecies: Isloud
Riolsson, P.E.; Kling, P.; Erkell, L.J.; Kille, P.
Eur. J. Biochem. 230, 344-349, 1995
A;Title: Structural and functional analysis of the rainbow trout (Oncorhyncus mykiss) met
A;Title: Structural and functional analysis MID:7601121
A;Reference number: I51049; MUID:95324545; PMID:7601121
A;Reference number: Isloud,
A;Reference number: Isloud,
A;Reference number: Isloud,
A;Residues: 114 <OLS>
A;Cross-references: EMBL:X80181; NID:g1019799; PIDN:CAA56466.1; PID:g4379328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Homo sapiens (man)
C;Date: 20-Oct-1994 #sequence_revision 26-Jul-1996 #text_change 17-Mar-1999
C;Date: 20-Oct-1994 #sequence_revision 26-Jul-1996 #text_change 17-Mar-1999
C;Date: 20-Oct-1994 #sequence_revision 26-Jul-1996 #text_change 17-Mar-1999
R;Wagner, S.D.; Williams, G.T.; Larson, T.; Neuberger, M.S.; Kitamura, D.; Rajewsky, K.;
Nucleic Acids Res. 22, 1389-1393, 1994
A;Reference number: 843956; MulD:94248036; PMID:8190629
A;Reference number: 843956; MulD:94248036; PMID:8190629
A;Residues: 1-4 < WAG>
C;Keywords: immunoglobulin
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                  R-phycoerythrin alpha-1 chain - red alga (Gastroclonium coulteri) (fragment)
C;Species: Gastroclonium coulteri
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Jun-2001
C;Accession: A22565
R;Klotz, A.V.; Glazer, A.N.
J;Biol. Chem. 260, 4856-4863, 1985
A;Title: Characterization of the bilin attachment sites in R-phycoerythrin.
A;Reference number: A22565; MUD:85182601; PMID:3886644
A;Resesion: A22565
A;Molecule type: protein
A;Residues: 1-3 <KLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23.7%; Score 9; DB 2; Length 4; 100.0%; Pred. No. 2.8e+05; cive 0; Mismatches 0; Indelu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23.7%; Score 9; DB 2; Length 4; 100.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 3;
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23.7%; Score 9; DB 3; Ler
100.0%; Pred. No. 2.8e+05;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ig mu chain V region (clone 13) - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Pred. no.
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 23.7
Best Local Similarity 100.
Matches 1; Conservative
1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 1; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                               1 CV 2
                                                                                                 Ŋ
                                                                                              - CL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ¢.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ы
О
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              I51049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    843959
                                                  ઠે
                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                      Troctein - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 12-Aug-1996 #sequence_revision 12-Aug-1996 #text_change 05-Nov-1999
C;Accession: 137263
K;Waeber, G.; Habener, J.F.
Endocrinology 131, 2010-2015, 1992
A;Title: Novel testis germ cell-specific transcript of the CREB gene contains an alterna A;Reference number: 137263; MUID:93010691; PMID:1396344
A;Accession: 137263
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      glycoprotein component 16/major fat-globule membrane protein/MFG-E8 homolog - bovine (fr
Species Bos primiganius taurus (cattle)
C;Beccies: 19-Nov-1993 #sequence_revision 18-Nov-1994 #text_change 07-Feb-1997
C;Accession: H48394
R;Mather. I.H.; Banghart, L.R.; Lane, W.S.
Biochem. Mol. Biol. Int. 29, 545-554, 1993
A;Title: The major fat-globule membrane proteins, bovine components 15/16 and guinea-pig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R-phycoerythrin beta-1 chain - red alga (Gastroclonium coulteri) (fragment) C;Species: Gastroclonium coulteri
C;Species: Gastroclonium coulteri
C;Accession: C2265
R;Klotz, A.V.; Glazer, A.N.
J;Biol. Cham. 260, 4856-4831, 1985
A;Title: Characterization of the bilin attachment sites in R-phycoerythrin. A;Reference number: A22565; MUID:85182601; PMID:3886644
                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-6 <RES>
A;Cross-references: EMBL:X68994; NID:g396171; PIDN:CAA48780.1; PID:g579816
C;Genetics:
A;Gene: CREB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 11; DB 2; Length 6; Pred. No. 2.8e+05; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Residues: 1-6 <MAT>
A;Experimental source: milk
A;Note: sequence extracted from NCBI backbone (NCBIP:131518)
C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       II-like sequences.
A;Reference number: A48394; MUID:93250576; PMID:8485470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 10; DB 2; 1
Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 11; DB 2; I
Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28.9%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 28.9
Best Local Similarity 66.7
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary
A;Molecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Accession: C22565
A;Molecule type: protein
A;Residues: 1-6 <KLO>,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 LTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 LTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: H48394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
```

ઠે 요

ò 셤

```
RESULT 15
S55238
Gyalidipin - assassin bug (fragment)
C;Species: Triatoma pallidipennis (assassin bug)
C;Date: 19-Mar-1997 #sequence_revision 18-Uul-1997 #text_change 19-May-2000
C;Accession: S55238
R;Haendler, B.; Becker, A.; Noeske-Jungblut, C.; Kraetzschmar, J.; Donner, P.; Schleunir Blochem. J. 307, 465-470, 1995
A;Title: Expression of active recombinant pallidipin, a novel platelet aggregation inhib A;Reference number: S55238; MUID:95251610; PMID:7733884
A;Molecule type: protein
A;Residues: 1-4 <HAE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 23.7%; Score 9; DB 2; Length 4; Best Local Similarity 100.0%; Pred. No. 2.88+05; Matches 1; Conservative 0; Mismatches 0; Indels
1 C 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1
- C
1
                                           2
C-
8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

Search completed: April 1, 2005, 11:54:19 Job time : 39 secs

g

version 5.1.6 - 2005 Compugen Ltd.

GenCore (c) 1993

Copyright

protein search, using sw model

OM protein -

2005, 11:40:39

```
sepia offic
rattus sp.
carcinus ma
bacillus ce
clostridium
spinacia ol
spinacia ol
spinacia ol
lactobacill
homo sapien
                                                                                                                                                                                anthopleura
                                                                                                                                      hirudo medi
hirudo medi
                                                                                                                                                                                                                                                              litoria rub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004 (Rel. 44, Created)
05-JUL-2004 (Rel. 44, Last sequence update)
05-JUL-2004 (Rel. 44, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
FMRFamide-like neuropeptide (LPLRF-amide).
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tree frog
Litoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Litoria rubella (Desert tree frog).

Bukaryota i Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
Pelodryadinae; Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aust. J. Chem. 52:639-645(1999).
-!- SUBCELLULAR LOCATION: Secreted.
-!- TISSUB SPECTFICITY: Skin.
-#Amidation; Amphibian defense peptide; Direct protein sequencing.
MOD RES
6 Methionine amide.
SEQÜENCE 6 AA; 792 MW; 6683704772C9A000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                  P81151
P82181
P82182 P82541
P83533 P02731 P42562 P42562 P42562 P42562 P42563 P4264 P4264 P63568 P63569 P63568 P63569 P635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wallace J.C.;
Australian buzzing
skin peptides from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 13; DB 1; Length 6; Pred. No. 1.6e+06; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Rel. 41, Last sequence update) (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                      6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ź
                                                                                                                                                                                                                                                                                                                      ALIGNMENTS
P83073
UN06 CLOPA
                                   P82181
P82182
P82541
P83533
E0SI HUMAN
FAR3 HIRME
FLRF HIRME
FLRF ANTEL
                                                                                                                                                                                                                                     AL14 CARMA
RE11 LITRU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUB-Skin secretion;
Wabhitz P.A., Bowie J.H., Tyler M.J.,
"Peptides from the skin glands of the
Litori electrica. Comparison with the
                                                                                                                                                                                                                   Q084<u>3</u>3
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 41, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Query Match
Best Local Similarity 66.7°,
Best Local Similarity
  01000001111011
2 VPL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2003
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rubella.";
  RESULT 1
EI01_LITRU
ID _EI01_LITN
AC P82096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
FARP_CHICK
ID FARP_CHICA
AC P83308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P82096 litoria rub
P83108 gallus gall
P2310 human herpe
P84182 eisenia foe
P82099 litoria rub
P13736 mytilus edu
P1373 mytilus edu
P13737 perilus edu
P67859 limulus ma
P67858 limulus pol
P67859 periplaneta
P62970 bombina ori
P62968 sus scrofa
P62969 sus scrofa
P62969 ovis aries
P19916 pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          saccharomyc
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             citrobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                    ; Search time 115 Seconds
(without alignments)
26.717 Million cell updates/sec
```

71

Total number of hits satisfying chosen parameters:

seq length: 0 seq length: 6

Minimum DB Maximum DB

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Database

Query Match Length

Score

1612378 segs, 512079187 residues

BLOSUM62 Gapop 10.0 , Gapext 0.5

Scoring table:

Searched:

US-09-761-636A-12 38

Perfect score:

Sequence:

1 CVPLTC 6

ô

TISSUE=Brain; PubMed=6137771; Dockray G.J., Reeve.J.R. Jr., Shively J., Gayton R.J., Barnard C.S.;

SEQUENCE, AND SYNTHESIS

daucus caro litoria rub litoria rub

NCBI_TaxID=9031;

Gallus.

bothrops in litoria rub pardachirus acheta dome leptinotars penaeus mon sarcophaga

PARP CHICK PARP CHICK AP21 E1SFO AP21 E1SFO CIP1 MYTED CIP2 DERW THYL DOWN THYL BOWN THYL NOTVI THYL BOWN THYL SEEP DOWL PEECH THYL FIG THYL SEEP COML PEECH COML PEECH COML PEECH COML PEECH THYL THYL THYL HOWAN THYL SEEP COML PEECH COML PEECH COML PEECH COML PEECH SEEP COML PEECH COML PEECH SEEP COML PEECH SEEP COML PEECH COMP CITER BEOT COTTER BE

P36515 Q16047 Q16047 P13071 P20425 P82100 P82100 P19991 P42985 P84005 P41495 P582072 P82072

SARBU

THE COURTE OF THE COURT OF THE

셤

```
Acta Biochim. Biophys. Sin. 36:297-302(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and P.aeruginosa.
-!- MASS SPECTROMETRY: MW=510.8; METHOD=MALDI; RANGE=1-5; NOTE=Ref.1.
Antibiotic; Direct protein sequencing.
SEQUENCE 5 AA; 407 MW; 687DC5BEBDB00000 CRC64;
                                                                                                                                                 Eisenia foetida (Common brandling worm) (Common dung-worm).
Eukaryota, Metazoa, Annelida, Clitellata, Oligochaeta, Haplotaxida,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wabbitz P.A., Bowle J.H., Tyler M.J., Wallace J.C., "Peptides from the skin glands of the Australian buzzing tree frog Litori electrica. Comparison with the skin peptides from Litoria
                                                                                                                                                                                                                                                                                                           PubMed=15253156; Liu X.-Q., Sun Z.-J., Mang C., Li S.-J., Liu Y.-Z., where "Purification of a novel antibacterial short peptide in earthworm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota, Metazoa, Chordata, Craniata, Verțebrata, Euteleostomi,
Ambhibia, Batrachia, Anura, Neobatrachia, Hyloidea, Hylidae,
Pelodryadinae, Litoria.
NCBI_TaxID=104895;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aust. J. Chem. 52:639-645(1999).
-!- SUBCELLULAR LOCATION: Secreted.
-!- TISSUE SPECIFICITY: Skin.
-Amidation; Amphibian defense peptide; Direct protein sequencing.
MOD RES
5 Methionine amide.
SEQÜENCE 5 AA; 630 MW; 668761F2C9A00000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23.7%; Score 9; DB 1; Ler
100.0%; Pred. No. 1.6e+06;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.7%; Score 9; DB 1; Le 50.0%; Pred. No. 1.6e+06; Ative 1; Mismatches 0;
                                 25-JAN-2005 (Rel. 46, Created)
25-JAN-2005 (Rel. 46, Last sequence update)
25-JAN-2005 (Rel. 46, Last annotation update)
25-JAN-2005 (Rel. 46, Last annotation update)
Elsenia foetida (Common brandling worm) (Common brandling worm)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CIPI_MYTED

ID _CIPI_MYTED

AC P1375,
DT 01-JAN-1990 (Rel. 13, Created)

DT 01-JAN-1990 (Rel. 13, Last sequence update)
                                                                                                                                                                                                                                                                                     FUNCTION, AND MASS SPECTROMETRY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Electrin 3.
Litoria rubella (Desert tree frog)
                                                                                                                                                                                                    Lumbricina; Lumbricidae; Eisenia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Skin secretion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
es 1; Conserv
                                                                                                                                                                                                                                                                                                                                                                                             Eisenia foetida.";
                                                                                                                                                                                                                                   NCBI TaxID=6396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 C 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 PM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 PL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 5
EI03_LITRU
ID _EI03_LITRU
                                                                                                                                                                                                                                                                               SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rubella."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P82099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE=91101287; PubMed=1846198;
Flanagan W.M., Papavassiliou A.G., Rice M., Hecht L.B.,
Silverstein S., Wagner B.K.;
"Analysis of the herpes simplex virus type 1 promoter controlling the expression of the herpes simplex virus type 1 promoter controlling the expression of the herpes simplex virus type 1 promoter controlling the cypression of 6118, a true late gene involved in capsid assembly.";
J. Virol. 65:769-786 (1991).
-I- FUNCTION: Component of the basal layer in which the capsids are embedded. Binds DNA.
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human herpesvirus 1 (strain KOS) (HHV-1) (Human herpes simplex virus
01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Capaid assembly and DNA maturation protein (Virion protein UL38)
(Capaid protein VP19C) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -1- SIMILARITY: Belongs to the herpesviruses VP19C family.
                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                               Query Match 31.6%; Score 12; DB 1; Length 5; Best Local Similarity 66.7%; Pred. No. 1.6e+06; Matches 2; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.9%; Score 11; DB 1; Length 6; 100.0%; Pred. No. 1.6e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                           GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
Amidation; Direct protein sequencing; Neuropeptide.
MOD RES 5 5
SEQUENCE 5 AA; 645 MW; 6904073767400000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirine; Simplexvirus.
NCBI_TaxID=10306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE 6 AA; 703 MW; 67376451A336F000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; MS7646; AAA45830.1; -.
Capsid assembly; Coat protein; DNA-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                       2 VPL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 LPL 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 PL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
AP21_EISFO
ID _AP21_EISFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HHV1K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
VP19 HHV1K
AC P213 TO
DT P213 TO
DT O1-NOV.
DT O1-NOV.
DT O1-NOV.
DE (Capsid ON Names!)
OS Human |
OS Human |
OS Alphab.
OC Alphab.
OC Alphab.
RA Flanag
CC Alphab.
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
```

ö

Gaps

. 0

ö

Gaps

ö

5 AA.

PRT;

STANDARD;

us-09-761-636a-12.closed.rup

```
Conservative
                                                                                                                                                                                                                                                                                            1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                         collision.
                                                                                                                                                                                                                                                                                                                 3 PL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 2 K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ÷
                                                                                                                                                                                                                                                                                                                                                                                        CARMA
                                                                                                                                                                                                                                                                                                                                                                                                                                           Proctolin.
                                                                                                                                                                                                                                                   SEQUENCE
                                                             SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                         RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
PRCT_LIMPO
                                                                                                                                                                                                                                                                                                                                                                    CARMA
                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                        PRCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
  ð
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                           ö
                                                                     SEQUENCE.
TISSUB-Pedal ganglion;
TISSUB-Pedal ganglion;
MEDLINE=88240357; PubMed=3377776;
Hirata T., Kubota I., Iwasawa N., Takabatake I., Ikeda T., Muneoka Y.;
Hirata T., Kubota I., Iwasawa N., Takabatake I., Ikeda T., Muneoka Y.;
"Structures and actions of Mytilus inhibitory peptides.";
Biochem. Biophys. Res. Commun. 152:1376-1382(1988).
-: FUNCTION: Inhibitory action on contractions in several molluscan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hirata T., Kubota I., Iwasawa N., Takabatake I., Ikeda T., Muneoka Y.; "Structures and actions of Mytilus inhibitory peptides."; Biochem. Biophys. Res. Commun. 152:1376-1382(1988).
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                       01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 46, Last annotation update)
Contraction-inhibiting peptide II (MIP II).
Mytilus edulis (Blue mussel).
Bukaryota; Metazoa; Mollusca; Bivalvia; Pteriomorphia; Mytiloida;
Mytiloidea; Mytilidae; Mytilus.
05-JUL-2004 (Rel. 44, Last annotation update)
Contraction-inhibiting peptide I (MIP I).
Mytilus edulis (Blue mussel).
Eukaryota; Metazoa; Mollusca: Bivalvia; Pteriomorphia; Mytiloida;
Mytiloidea; Mytilidae; Mytilus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 6;
                                                                                                                                                                                                                      Length 6;
                                                                                                                                                                  PIR; A27696; A27696.
Amidation; Direct protein sequencing; Hormone.
MOD RES
SEQÜENCE 6 AA; 637 MW; 72C9C68775B81000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 6 AA; 621 MW; 72C9C6876DD81000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Le
                                                                                                                                                                                                                     23.7%; Score 9; DB 1; Le
larity 50.0%; Pred. No. 1.6e+06;
Conservative 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; B27696; B27696.
Amidation; Direct protein sequencing; Hormone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                      6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 9;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE.
TISSUE-Pedal ganglion;
MEDLINE-88240357; PubMed=3377776;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Rel. 43, Created)
(Rel. 43, Last sequ
(Rel. 44, Last anno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.7%;
50.0%;
                                                                                                                                                       -1- SIMILARITY: TO MIP II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SIMILARITY: TO MIP I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
es 1; Conserv
                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                          3 PM 4
                                                                                                                                                                                                                                                               3 PL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-MAR-2004
29-MAR-2004
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           з В<u>Г</u>
В — В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAPP SEPOF

1D SAPP SEPOF

AC P83569;

DT 29-MAR-2004

DT 05-JUL-2004
                                                                                                                                                  muscles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               muscles
                                                                                                                                                                                                                                                                                                                                      CIP2 MYTED P13737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD RES
SEQUENCE
                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                             CIP2_MYTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                 Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
                                                                                                                                                                                                                                                                                                                 RESULT 7
  g
                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                               ઠે
```

```
-!- SUBCELLULAR LOCATION: Secreted.
-!- DEVELOPMENTAL STAGE: First appears in the ovarian follicles furing vitellogenesis. Accumulates in the cocytes before being secreted during fertilization. Expression continues in the embedded occyte. Accumulates in the egg capsule after fertilization.
-!- MASS SPECTROMETRY: WW=596.6; METHOD=MALDI; RANGE=1-6; NOTE=Ref.1.
                                                                                                                                                                                                                                                AMIDATION.
TISSUBE-BGg;
MEDLINE-22197108; PubMed=12207899; DOI=10.1016/S0006-291X(02)02036-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-86232789; PubMed=2872661; DOI=10.1016/0196-9781(86)90063-X; Stangier J., Dircksen H., Keller R.; Stangier J., Dircksen H., Keller R.; Indentification of proctolin in pericardial organs of the shore crab, Carcinus maenas."; Peptidas 7:67-72(1986). -- FUNCTION: Stimulates cardiac output and hindgut motility, modulates visceral and skeletal muscle in many arthropods. -- SUBCELLULAR LOCATION: Secreted. -- TISSUE SPECIFICITY: Found in the crab pericardial organs.
Sperm attracting peptide SepSAP.
Sepia officinalis (Common cuttlefish).
Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
Decapodiformes; Sepioidea; Sepiidae; Sepia.
NCBI_TaxID=6610;
                                                                                                                                                                                                             FUNCTION, DEVELOPMENTAL STAGE, MASS SPECTROMETRY, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                               Biochem. Biophys. Res. Commun. 296:1186-1193(2002).
                                                                                                                                                                                                                                                                                                                                       Zatylny C., Marvin L., Gagnon J., Henry J.;
"Fertilization in Sepia officinalis: the first mollusk sperm-attracting peptide.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carcinus maenas (Common shore crab) (Green crab).

Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;

Eumalacostraca; Eucarida; Decapoda; Pleccyemata; Brachyura;

Eubrachyura; Portunoidea; Portunidae; Carcinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21.1%; Score 8; DB 1; Length 5; 50.0%; Pred. No. 1.6e+06; ive 1; Mismatches 0; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23.7%; Score 9; DB 1; Length 6; 50.0%; Pred. No. 1.6e+06; ive 1; Mismatches 0; Indelu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct protein sequencing, Neuropeptide.
SEQUENCE 5 AA, 649 MW; 71B7673B44600000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 AA; 597 MW; 72C8676AA0470000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
21-JUL-1986 (Rel. 01, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Valine amide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Amidation; Direct protein sequencing.
```

ö

```
NCBI TaxID=303;
                  2 VP 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'n
                                з <u>г. —</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 VP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :-
5 LP
                                                                                                               PSEPU
                                                                                                                                                                                                           Name=trpI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NON TER
SEQUENCE
                                                                                                                TRPI PSE
P36414;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                  PSEPU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THYL_BOMOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
                                                                                                             8
                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Starratt A.N., Brown B.E.;
"Structure of the pentapeptide proctolin, a proposed neurotransmitter
                                                                              Limulus polyphemus (Atlantic horseshoe crab).
Bukaryota, Metazoa, Arthropoda, Chelicerata, Merostomata, Xiphosura,
Limulidae, Limulus.
NCBI_TaxID=6850,
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                               SEQUENCE.
MEDLINE=90287800; PubMed=2356151; DOI=10.1016/0196-9781(90)90072-D;
Groome J.R., Tillinghast E.K., Townley M.A., Vetrovs A.,
Watson W.H. III, Hunt D.F., Griffin P.R., Alexander J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O'Shea M., Adams M.E.;

Pentapeptide (proctolin) associated with an identified neuron.";
Science 213:567-569 (1991)

-!- FUNCTION: Stimulates cardiac output and hindgut motility,
modulates visceral and skeletal muscle in many arthropods.
-!- SUBCELFULAR LOCATION: Secreted.
-!- TISSUE SPECIFICITY: Found in the lateral white neurons.
                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE.
MEDLINE=76074708; PubMed=576; DOI=10.1016/0024-3205(75)90134-4;
                                                                                                                                                                                                   Shabanowitz J.;
"Identification of proctolin in the central nervous system of information of unulus polyphemus.";
Peptides 11:205-211(1990).
-! FUNCTION: Stimulates cardiac output and hindgut motility, modulates visceral and skeletal muscle in many arthropods.
-! SUBCELLULAR LOCATION: Secreted.
-! TISSUE SPECIFICITY: Found in the crab pericardial organs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Periplaneta americana (American cockroach).
Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
Blattidae; Periplaneta.
                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h Similarity 50.0%; Pred. No. 1.6e+06; 1; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                     21.1%; Score 8; DB 1; Length 5; 50.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                            Direct protein sequencing; Neuropeptide.
SEQUENCE 5 AA, 649 MW; 71B7673B44600000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct protein sequencing; Neuropeptide.
SEQUENCE 5 AA; 649 MW; 71B7673B44600000 CRC64;
         P67856; P01373;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROLEGAC:
201-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
  5 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 AA.
                                                                                                                                                                                                                                                                                                                                                                                                1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOLOGICAL SOURCE.
MEDLINE=81225865; PubMed=6113690;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Life Sci. 17:1253-1256(1975)
                                                                                                                                                                                                                                                                                                                                                                                                1; Conservative
 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                               PIR; A60411; A60411.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           2 VP 3
 LIMPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PERAM
                                                                  Proctolin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proctolin.
                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRCT PERAM

ID PRCT PRAM

DT 21-JUL

DT 21-JUL

DE PROCTO

OS PETIPL

OC BLATLIC

OC BLATLIC

ON NCBL

RR SEQUEN

RA STEALL

RR SEQUEN

CC - - - FU

CC - - - TU

CC - - - TU
                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                   01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
HTH-type transcriptional regulator trpl (TrpBA operon transcriptional activator) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THYL BOMOR STANDARD; PRT; 3 AA.
P62970; P01151;
21-JUL-1986 (Rel. 01, Created)
22-JUL-1986 (Rel. 01, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Thyroliberin (Thyrotropin releasing hormone) (TRH) (Thyrotropin releasing factor) (Protirelin).
Bombina orientalis (Oriental fire-bellied toad).
Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Archeobatrachia; Bombinatoridae; Bombina.
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              putida...;
Biochimie 71:521-531(1989).
-!- FUNCTION: Activates the expression of the trpBA genes encoding to two tryptophan synthase subunits. In the absence of the inducer (indoleglycerol phosphate), trpI binds upstream of the trpAB operon, overlapping its own promoter region.
-!- SIMILARITY: Contains 1 HTH 198R-type DNA-binding domain.
                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=PF01 C1S;
MEDILTE=8933826; PubMed=2503057; DOI=10.1016/0300-9084(89)90183-1;
BDE-11y L., Crawford I.P.;
"DNA sequence of the tryptophan synthase genes of Pseudomonas
                                                                                                                                                                                                                                                          Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Pseudomonadaceae; Pseudomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 AA; 683 MW; 77672AA1EDD6F000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000847; HTH LysR.
PROSITE; PS50931; HTH_LYSR; PARTIAL.
Activator; DNA-binding; Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21.1%; Score 8; DB 1; Le 50.0%; Pred. No. 1.6e+06;
   6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Mismatches
   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; X13299; CAA31660.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tryptophan biosynthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
es 1, Conserv
                                                                                                                                                                                                                                  Pseudomonas putida
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
```

ö

Gaps

ó.

0; Indels

Matches

```
Job time : 115 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 P
                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Brain;
MEDLINE=75035605; PubMed=4214528;
Mcfrimw-Oergensen Y., McKelvy J.F.;
Biosynthesis of thyrotropin v1.F.;
"Biosynthesis of thyrotropin releasing factor.";
J. Neurochem. 23:471-478(1974).
-!- FUNCTION: TRH functions as a regulator of the biosynthesis of TSH neuromodulator pituitary gland and as a neurotransmitter/
neuromodulator in the central and peripheral nervous systems.
                                                                                                             Chem. Pharm. Bull. 23:3301-3303 (1975).

-1- FUNCTION: TRH functions as a regulator of the biosynthesis of TSH in the anterior pituitary gland and as a neurotransmitter/ neuromodulator in the central and peripheral nervous systems (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                    -1- SUBCELLULÂR LOCATION: Secreted.
PIR; A90919; RHTDTO.
Amidation; Direct protein sequencing; Pyrrolidone carboxylic acid.
MOD_RES 1 1 Pyrrolidone carboxylic acid.
MOD_RES 3 Proline amide.
SEQÜENCE 3 AA; 380 MW; 7761F6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; A92971; A92971.
Amidation; Direct protein sequencing; Pyrrolidone carboxylic acid.
Pyrrolidone carboxylic acid.
Pyrrolidone carboxylic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-JUL-1986 (Rel. 01, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Thyroliberin (Thyrotropin releasing hormone) (TRH) (Thyrotropin releasing factor) (TSH-releasing factor) (Protirelin).
Notophthalmus viridescens (Bastern newt) (Triturus viridescens).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Amphibia, Batrachia, Caudata, Salamandroidea, Salamandridae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                        18.4%; Score 7; DB 1; Length 3; 100.0%; Pred. No. 1.6e+06; Attive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1; Length 3;
                                                                     Yasuhara T., Nakajima T.; "Occurrence of Pyr-His-Pro-NH2 in the frog skin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 AA; 380 MW; 7761F6B00000000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 7; DB 1; Le.
Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18.4%; Scortino. 100.0%; Pred. No. 100.0%; Pred. No. 100.00%; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                               MEDLINE=76138399; PubMed=815011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
THYL PIG
1D THYL PIG STANDARD;
AC RE2568; P01151;
DT 21-JUL-1986 (Rel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Rel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                   similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THYL NOTVI ST
P62971; P01151;
21-JUL-1986 (Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=8316;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Notophthalmus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ტ
ტ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -Δ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEOUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
THYL NOTVI
TO THYL NOTVI
TO THYL NOTVI
DT 21-UUL
DT 21-UUL
DT 25-OCT
DE THYROL
DE THYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
DT 21-01-1986 (Rel. 01, Last sequence update)

DE 72-07-2004 (Rel. 45, Last annotation update)

DE Thyroliberin (Thyrotropin releasing howmone) (TRH) (Thyrotropin releasing factor) (Protirelin).

ON Name=TRH;

OC Sus scrofa (Plg).

OC ENTARYOLA; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

OX NCBL TaxID=9823;

RA MAIR M. A. Barrett (J.F., Bowers C.Y., Schally A.V.;

RA MAIR M. A. Barrett J.F., Bowers C.Y., Schally A.V.;

RA MAIR M. A. Barrett J.F., Bowers C.Y., Schally A.V.;

R. Schuckure of pordine thyrotropin releasing hormone.";

R. Schuckure of pordine thyrotropin releasing hormone.";

R. Sichenture of pordine and progetties of the thyrotropin releasing hormone and progetties of the thyrotropin releasing hormone and progetties of the blosynthesis of TSH with dentity of chemical and hormonal properties of the blosynthesis of TSH releasing hormone and pyroglutamy. Jistidyl-proline amide.";

R. Boler J., Enamann F., Folyacil W., 100:69;

R. MEDINE-70039904; PubMed=4982117;

R. Boler Dentity of chemical and peripheral nervous systems.

C. Subschuldark Lockarious sea requistor of the blosynthesis of TSH in the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neurotransmitter.

C. In the anterior pituitary gland and as a neur
```

THIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

Run on:

April 1, 2005, 11:39:44 ; Search time 117 Seconds (without alignments) 19.834 Million cell updates/sec

US-09-761-636A-12 Perfect score: Title:

1 CVPLTC 6 Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

2105692 segs, 386760381 residues Searched:

78325 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 6

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

A_Geneseq_16Dec04:* Database :

geneseqp1980s:* geneseqp1990s:* geneseqp2000s:* geneseqp2001s:*

geneseqp2003as:* geneseqp2003bs:*geneseqp2004s:* geneseqp2002s:* 4.0.07.8

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

uo	VEGF base	Cadherin-	Cadherin-	PB-cadher	Cadherin-	191P4D12(Cadherin-	IL-2 deri	PB-cadher	Cadherin-	Peptide 1	Farnesyl-	Farnesylt	Farnesyl	Farnesyl	HCV pepti	Transcrip	Protocadh	Cadherin-	Cadherin-	Protocadh	Cell adhe	Osteogeni	Antibacte	Peptide l
Description	Aau04531	Aay61488	Aay62223	Aay62763	Aay62006	Adk83244	Aay64259	Aay85373	Aay62757	Aay62488	Aay44431	Aar15772	Aar49769	Aar77833	Aaw04459	Aaw67428	Aaw31456	Aay63235	Aay61927	Aay62132	Aay63263	Adp06886	Aar51652	Adk42191	Aar08270
QI	AAU04531	AAY61488	AAY62223	AAY62763	AAY62006	ADK83244	AAY64259	AAY85373	AAY62757	AAY62488	AAY44431	AAR15772	AAR49769	AAR77833	AAW04459	AAW67428	AAW31456	AAY63235	AAY61927	AAY62132	AAY63263	ADP06886	AAR51652	ADK42191	AAR08270
DB	4	m	m	m	m	œ	٣	ო	ო	ᠬ	٣	7	~	~	7	~	~	m	m	m	m	œ	~	æ	7
% Query Match Length DB	9	9	9	9	9	9	9	9	9	9	9	4	4	4	4	ស	9	9	9	9	9	9	4	4	2
& Query Match	100.0	68.4	65.8	65.8	65.8	65.8	63.2	60.5	60.5	60.5	60.5	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	55.3	55.3	55.3	52.6	52.6	52.6
Score	38	26	25	25	25	25	24	23	23	23	23	22	22	22	22	22	22	22	22	21	21	21	20	20	20
Result No.	1		m	47	ις.	9	7	80	თ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

9 Glycosy 9 peptide 5 Glycoha 1 Haemogl 1 Haemogl 7 Tissue 7 Tissue 7 Norwal 7 Haemogl 7 Haemogl 1 Haemogl 1 Haemogl 2 Canine 5 Canine 5 Canine 6 Immunom 4 Immunom 6 Immunom	au Inclint 61769MPW
AAR78749 AAY69213 AAY68095 AAY68195 AAG78351 AAG78351 AAG78351 AAG78351 AAG78351 AAG78351 AAG7833 AAM87033 AAM87033 AAM87033 AAM87033	AAMBSZIS
ашшш4пппппггггаиииии	4
, , , , , , , , , , , , , , , , , , ,	D
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.20
	> 4
77777777777777777777777777777777777777	ů.

ALIGNMENTS

RESULT 1

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. AAU04531 standard; peptide; 6 AA. VEGF based monocyclic peptide 9. (first entry) 26-SEP-2001 AAU04531; AAU0453

Location/Qualifiers Synthetic

 .6
 /note= "This bond cyclises the peptide" Key Disulfide-bond WO200152875-A1 26-JUL-2001.

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. 18-JAN-2001; 2001WO-US001533.

(LUDW-) LUDWIG INST CANCER RES

Stacker S, Hughes RA, WPI; 2001-442248/47. Achen MG,

Cendron A;

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic competitions) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, no enaminal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, condition is diabetic retinopathy, psoriasis, arthropathy, condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, head, heat or clauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoned cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere content inflammation, to the train a characterised content inflammation, to treat a characterised content inflammation, especially rheumatoid arthritis, psoriasis and characterised.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Modulation; nonclassical cadherin mediated cell adhesion, CAR, inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-7; cadherin-18; cadherin-14; cadherin-15; T-cadherin; PB-cadherin, cadherin-16; cadherin, acadherin, acadherin, acceptor; II-cadherin; protocadherin; cadherin related neuronal receptor; II-cadherin; protocadherin; desemoglain; desmocollin; calcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cadherin-7 cell adhesion recognition cyclic peptide SEQ ID NO:1374.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 38; DB 4; Length 6; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
1. .6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY61488 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gour BJ, Byers S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-00073040.
98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-CA000363.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                          diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Digulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9957149-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-NOV-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY61488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

Gaps

```
The present invention describes cauncing modulating comprising peptides which comprise a nonclassical cadherin cell adhesion recognition (CAR) sequence. The MAs can be used for modulating conclassical cadherin-mediated functions. They can be used for e.g. inhibiting adhesion of nonclassical-cadherin expressing cells in a conclassical cadherin-they of a drug through the skin of a mammal, channeling delivery of a drug through the skin of a mammal, confined delivery of a drug to a tumour in a mammal, treating cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting cancer in a mammal, inhibiting apoptosis in a mammal, inhibiting concerning adoptosis in a mammal, inhibiting and separating of treating a demyeling drug delivery to the contral nervous system, treating a demyelinating neurological disease, conclassing vasopermeability in a mammal, enhancing adhesion of for increasing or directing neurite outgrowth, facilitating wound healing or reducing scar tissue, or enhancing adhesion of foreign tissue in a mammal. They can also be used for treating a delesion of foreign tissue in a mammal. They can also be used for treating a described and diabetes. The products can also be used for treating elerosis and in bioreactors. AAV646512 to AAV64612 represent specifically claimed peptides, and in AAV64513 to AAV64631 and AAV64813186 represent sequences used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                    cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; ble-cadherin; cadherin-5; cadherin-6; cadherin-7; cadherin-12; cadherin-15; T-cadherin; PB-cadherin; cadherin related neuronal receptor; LI-cadherin; protocadherin; desmocollin; calcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cadherin-14 cell adhesion recognition cyclic peptide SEQ ID NO:3970.
                                                           New cadherin modulating agents, used for modulating nonclassical ca-mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                         The present invention describes cadherin modulating agents (MA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.4%; Score 26; DB 3; Length 6; 66.7%; Pred. No. 1.8e+06; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 1..6
                                                                                                                                               Claim 36; Page 172; 252pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY62223 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neurological disease; cyclic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Conservative
                      WPI; 2000-038791/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ČEPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  409957149-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-NOV-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY62223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY62223
ID AAY6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

```
98US-00073040.
                                                                                                                                                                                                                                                                                                                                     98US-00187859.
                                                                                                                                                                                                                                                                                                                                                                                     99US-00264516.
                                                                                                                                                                                                                                                            99WO-CA000363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 66.7
nes 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Blaschuk OW, Gour BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-038791/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDPKTC
                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 6 AA;
Synthetic.
Homo sapiens.
                                                                                                                                                         WO9957149-A2
                                                                                                                                                                                                                                                            05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                        06-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                        08-MAR-1999;
                                                                                                                                                                                                         11-NOV-1999
                                                                                                                                                                                                                                                                                                               05-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY62006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BXAXEXB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            recognition (CAR) sequence. The MAs can be used for modulating comprising peptides which comprises a nonclassical cadherin cell adhesion recognition (CAR) sequence. The MAs can be used for modulating adhesion of monclassical-cadherin expressing cells in a mammal, enhancing delivery of a drug through the skin of a mammal, chantery of a drug through the skin of a mammal, chantery of a drug to a tumour in a mammal, treating cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting cangiogenesis in a mammal, chantering apoptosis in a nonclassical cadhering carpressing cells, preventing or treating a demyelinating neurological disease, blood vessel regression in a mammal, enhancing delivery to the central nervous system, treating a demyelinating neurological disease, contral nervous system, treating a demyelinating neurological disease, contral nervous system, in a mammal, enhancing of symptic stability in a mammal, or preventing pregnancy in a mammal. They can also be used for treating e.g. psoriasis, arthritis, age mammal. They can also be used for treating adhesion of foreign tissue in a mammal. They can also be used for treating e.g. psoriasis, arthritis, age related macular degeneration, multiple sclerosis and diabetes. The products can also be used for treating e.g. psoriasis, arthritis, age related macular degeneration, multiple sclerosis and diabetes, and AAV64651 to AAV64651 represent sequences used in the constant in the constant of the constant in the constant of the constant in the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                  New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modulation; nonclassical cadherin mediated cell adhesion, CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-7; cadherin-18; cadherin-113; cadherin-15; T-cadherin; PB-cadherin; cadherin-15; T-cadherin; cadherin; protocadherin; cadherin related neuronal receptor; LI-cadherin; protocadherin; rehematoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PB-cadherin cell adhesion recognition cyclic peptide SEQ ID NO:4046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              present invention describes cadherin modulating agents (MA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65.8%; Score 25; DB 3; Length 6; 66.7%; Pred. No. 1.8e+06; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 54; Page 184; 252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY62763 standard; peptide; 6 AA.
                                                                                                                                                                                 (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                    Byers S;
                                                98US-00073040.
98US-00187859.
99US-00234395.
99US-00264516.
99WO-CA000363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                               Gour BJ,
                                                                                                                                                                                                                                                                                  WPI; 2000-038791/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 6 AA;
                                                                                                                                                                                                                                 Blaschuk OW,
05-MAY-1999;
                                                   05-MAY-1998;
                                                                           06-NOV-1998;
                                                                                                      20-JAN-1999;
                                                                                                                              08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY62763;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY62763
IID AAY6
XX AC AAX
XX AC AX
XX AX
XX AC AX
XX AC AX
XX AX
XX AC AX
XX AC AX
XX AC AX
XX AC AX
XX
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
```

```
The present invention describes cadherin modulating agents (WA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

cecognition (CAR) sequence. The WAs can be used for modulating

crecognition (CAR) sequence. The WAs can be used for e.g.

inhibiting adhesion of nonclassical-cadherin expressing cells in a

commal, enhancing delivery of a drug through the skin of a mammal,

comman, inhibiting metastasis of a cancer in a mammal, treating cancer in

a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting

compressing cell, preventing or treating obesity in a mammal, stimulating

conclassical regression in a mammal, enhancing delivery to the

contral nervous system, treating a demyelinating neurological disease,

increasing vasopermeability in a mammal. They can also be used for

conclassical cadherin-expressing cells, inhibiting synaptic stability in

a mammal, or preventing pregnancy in a mammal. They can also be used for treating act irreduing act itssue, or enhancing adhesion of foreign tissue in a

cor reducing scar tissue, or enhancing adhesion of foreign tissue in a

mammal. They can also be used for treating e.g. psoriasis, arthritis, age

created macular degeneration, multiple sclerosis and diabetes. The

products can also be used for detection and diapences and in bioreactors.

AAVE6522 to AAVE64572 represent specifically claimed peptides, and

AAVE6523 to AAVE6631 and AAX213186 represent sequences used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cadherin-12 cell adhesion recognition cyclic peptide SEQ ID NO:1798.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.8%; Score 25; DB 3; Length 6; 66.7%; Pred. No. 1.8e+06; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the exemplification of the present invention
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 72; Page 193; 252pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY62006 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Byers S;
```

```
Claim 48; Page 180; 252pp; English.
                                                                                      (ADHE-) ADHEREX TECHNOLOGIES INC
                                                                                                  WPI; 2000-038791/03.
                                            Disulfide-bond
                                                                                                                                                                                                         Sequence 6 AA;
                                   Homo sapiens.
                                                                                            Blaschuk OW,
                                                   WO9957149-A2
                                                                05-MAY-1999;
                                                                                08-MAR-1999;
                                                                      05-MAY-1998;
                                                                         06-NOV-1998;
                                                                            20-JAN-1999;
                                                         11-NOV-11999
                                Synthetic
                                                                                                                                                                                                               Query Match
```

Gour BJ,

99WO-CA000363

```
The present invention relates to novel compositions comprising peptides (ADK89300-ADK90584) from 191P4012(b) and related proteins. It was found that 191P4012(b), which maps to chromosome 1922-623.2, is aberrantly expressed in a number of cancers and so the compositions of the invention are useful in diagnosing, preventing and treating cancer, e.g. cancer of the prostate, bladder, kidney, colon, lung, pannerass, owary, breast, uterus or cervix and in eliciting a humoral or cellular immune response. To isolate genes that are overexpressed in prostate cancer, the derived from prostate cancer issues. The present peptide is the N-myristoylation site sequence present at position 218-223 in human
                                                                                                                                                                                                                                                                             Cytostatic; Immunostimulant; Vaccine; Gene Therapy; 191P4D12(b); cancer; prostate cancer; bladder cancer; kidney cancer; colon cancer; lung cancer; pancer; oancer; oancer; oancer; oancer; oancer; oancer; oancer; cervix cancer; immune response; human; chromosome 1q22-q23.2; Suppression Subtractive Hybridisation; SSH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New composition comprising 191P4D12(b) proteins and polynucleotides, useful in diagnosing, preventing and treating cancer, e.g. prostate, bladder, kidney, colon, lung, pancreas or ovary and in eliciting a humoral or cellular immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65.8%; Score 25; DB 8; Length 6; 100.0%; Pred. No. 1.8e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Faris M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jakobovits A,
                                                                                                                                                                                                                             191P4D12(b) N-myristoylation site, SEQ ID 75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 46; SEQ ID NO 75; 443pp; English.
                                                                 ADK83244 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY64259 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Challita-Eid PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-APR-2003; 2003WO-US013013.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-AUG-2002; 2002US-0404306P.
01-NOV-2002; 2002US-0423290P.
                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-203808/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AGEN-) AGENSYS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2004016799-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 PLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                             20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Raitano AB,
                                                                                                                       ADK83244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY64259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY64259
ID AAY6
XX
AC AAY6
XX
DT 02-N
                                          ADK83244
              RESULT
                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes cadherin modulating agents (MA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

cecognition (CAR) sequence. The MAS can be used for modulating

cnonclassical cadherin-mediated functions. They can be used for e.g.

inhibiting adhesion of nonclassical-cadherin expressing cells in a

cmammal, enhancing delivery of a drug the a tumour in a mammal, treating cancer in

cenhancing delivery of a drug to a tumour in a mammal, inhibiting

candiogenesis in a mammal, inducing apoptosis in a nonclassical cadherin-

expressing cell, preventing or treating obesity in a mammal, stimulating

concressing vasopermeability in a mammal, enhancing drug delivery to the

contral nervous system, treating a demyelinating neurological disease,

increasing vasopermeability in a mammal, enhancing synaptic stability in

a mammal, or preventing pregnancy in a mammal. They can also be used for

cor reducing scar tissue, or enhancing adhesion of foreign tissue in a

mammal. They can also be used for treating e.g. psoriasis, arthritis, age

cor reducing scar tissue, or enhancing adhesion of foreign tissue,

cor reducing scar tissue, or enhancing adhesion of foreign tissue,

cor reducing scar tissue, or enhancing adhesion of foreign tissue,

cor reducing can also be used for treating e.g. psoriasis, arthritis, age

cor reducing can also be used for detection and diagnosis and in bioreactors.

AAY6652 to AAX64572 represent specifically claimed peptides, and

AAX64573 to AAX646483 and AAZ31186 represent sequences used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-6; cadherin-13; cadherin-14; cadherin-15; T-cadherin; PB-cadherin; cadherin-12; cadherin related neuronal receptor; LI-cadherin; protocadherin; desmegalein; desmocollin; calcium binding; cancer; tumour; obesity; rhemmatoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cadherin modulating agents, used for modulating nonclassical cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65.8%; Score 25; DB 3; Length 6; 66.7%; Pred. No. 1.8e+06; live 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Byers S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-00073040.
98US-00187859.
99US-00234395.
99US-00264516.
```

3

ö

Gaps

; 0

4; Conservative

Matches

CVPLTC 6 CDPKTC

-

ઠે ద

Local Similarity

Cadherin-related neuronal receptor CAR cyclic peptide SEQ ID NO:3573

RESULT 8 AAY85373

```
Modulation; nonclassical cadherin mediated cell adhesion, CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-7; cadherin-12; cadherin-14; cadherin-15; T-cadherin; PB-cadherin; cadherin-15; T-cadherin; cadherin; cadherin, cadherin, cadherin, cadherin; cadherin; catherin; catherin; catherin; catherin; catherin; catherin; catherin; calcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                             cadherin modulating agents, used for modulating nonclassical cadherin
                                                                                                                                                                                                                                                                                                                                                                                        -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 102; Page 217; 252pp; English.
                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                             (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                  Byers S;
                                                                                                                                                                                                                                                     98US-00073040.
98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                                                 99WO-CA000363
                                                                                                                                                                                                                                                                                                                                  Gour BJ,
                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-038791/03
                                                                                                                                                                Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                  Blaschuk OW,
                                                                                                                                 Homo sapiens
                                                                                                                                                                                      WO9957149-A2
                                                                                                                                                                                                                                 05-MAY-1999;
                                                                                                                                                                                                                                                       05-MAY-1998;
                                                                                                                                                                                                                                                                   06-NOV-1998;
                                                                                                                                                                                                                                                                            20-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                                            11-NOV-1999
                                                                                                                     Synthetic
```

```
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď
The present invention describes cadherin modulating agents (MA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

crecognition (CAR) sequence. The MAs can be used for modulating

crecognition (CAR) sequence. The MAs can be used for modulating

crecognition (CAR) sequence. The Mas can be used for e.g.

inhibiting adhesion of nonclassical radherin expressing cells in a

mammal, enhancing delivery of a drug through the skin of a mammal,

ca mammal, inhibiting metastasis of a cancer in a mammal, inhibiting

angiogenesis in a mammal, inducing apoptosis in a nonclassical cadherin-

expressing cell, preventing or treating obesity in a mammal, stimulating

central nervous system, treating a demyelinating neurological disease,

contral nervous system, treating a demyelinating neurological disease,

conclassing vasopermeability in a mammal, enhancing adhesion of

conclassical cadherin-expressing cells, inhibiting synaptic stability in

a mammal, or preventing pregnancy in a mammal. They can also be used for

cor reducing sear tissue, or enhancing adhesion of foreign tissue in a

conclassing vasopermeation, multiple sclerosis and diabetes. The

correcting macular degeneration, multiple sclerosis and diabetes. The

correction and above used for treating e.g. psoriasis, arthritis, age

related macular degeneration, multiple sclerosis and in bioreactors.

ANYSOSS2 to AAVSG457 represent specifically claimed peptides, and

conclassing vasopermeation of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 24; DB 3; Length 6; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CVPLTC 6
```

CDPVSC 6

Matches

ઠે 쉽

```
The invention provides synthetic antiinflammatory peptides derived from interlaukin-2 (IL-2). They can be used for inhibition of adhesion of activated T-cells to ECM proteins such as fibronectin, laminin, collagen type-IV; inhibition of form of T-cell through ECM proteins preferably fibronectin; inhibition of T-cell through ECM proteins preferably fibronectin; inhibition of spontaneous or induced.

The profess Treel proliferation; inhibition of spontaneous or induced, preferably TRP-alpha induced cytokine secretion (e.g.IL-8, IL-1beta) by stimulated T-cells and intestinal epithelial cells. The anti-inflammatory computed and their derivatives are useful for preparing compositions for treating and/or alleviating chronic or acute inflammatory disorders and autoimmune diseases such as rheumatoid arthritis, diabetes type-I, unlipbe sclerosis, systemic lupus erythematosus, bowel inflammation, uveitis, and Crohn's disease. Sequences AAY85366-374 represent modified anti-inflammatory derivative peptides derived from the IL-2 derived anti-inflammatory peptide pepl (AAY85363)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic antiinflammatory peptide derived from IL-2 and its derivatives
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                         Interleukin-2; IL-2; antiinflammatory; antiarthritic; antirheumatic; antidiabetic; neuroprotective; dermatological; immunosuppressive; opthalmological; autoimmune disease; multiple sclerosis; uveitis; systemic lupus erythematosus; Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful for treating inflammatory autoimmune diseases such as ri
arthritis, multiple sclerosis and systemic lupus erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 23; DB 3; Length 6;
Pred. No. 1.8e+06;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fridkin M;
                                                                                                          IL-2 derived anti-inflammatory peptide pep11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yavin EJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lider O, Ariel A, Hershkoviz R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY62757 standard; peptide; 6 AA.
AAY85373 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 6; Page 35; 49pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (YEDA ) YEDA RES & DEV CO LTD.
                                                                                                                                                                                                                                                                                                                                                                         99WO-IL000448.
                                                                                                                                                                                                                                                                                                                                                                                                            98GB-00018370.
                                                                                                                                                                                                                                                                                                                                                                                                                               98IL-00126009.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 99IL-00129980.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50.0%;
                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 50.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-256367/22.
                                                                                                                                                                                                                                                                                                WO200011028-A2.
                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                         19-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                              21-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                               31-AUG-1998;
                                                                       19-JUN-2000
                                                                                                                                                                                                                                                                                                                                    02-MAR-2000.
                                                                                                                                                                                                                                           Synthetic
                                    AAY85373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY62757
ID AAY6
XX
```

AAY62488 standard; peptide; 6 AA.

9

1 CDELIC CVPLTC

ద

02-MAR-2000 (first entry)

Location/Qualifiers

AAY62488;

```
The present invention describes cadherin modulating agents (MA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

recognition (CAR) sequence. The MAs can be used for modulating

crecognition (CAR) sequence. The MAs can be used for e.g.

inhibiting adhesion of nonclassical-cadherin expressing cells in a

creamal, enhancing delivery of a drug through the skin of a mammal,

cenhancing delivery of a drug to a tumour in a mammal, treating cancer in

a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting

congenesis in a mammal, inducing apoptosis in a nonclassical cadherin-

expressing cell, preventing or treating obesity in a mammal, stimulating

conclassing vasopermeability in a mammal, enhancing adhesion of

conclassical cadherin-expressing cells, inhibiting synaptic stability in

mammal, or preventing pregnancy in a mammal. They can also be used for

conclassical cadherin-expressing cells, inhibiting synaptic stability in

mammal, rhey can also be used for treating e.g. psoriasis, arthritis, age

conclassical decembracion, multiple sclerosis and diabetes. The

mammal. They can also be used for treating e.g. psoriasis, arthritis, age

created macular degeneration, multiple sclerosis and diabetes. The

products can also be used for treating e.g. psoriasis, and phoreactors.

AAV60592 to AAV64572 represent specifically claimed peptides, and

charactery and present invention invention in a mammal invention of the exemplifical invention of the present sequences used in
                                                                                                                  Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-6; cadherin-13; cadherin-14; cadherin-15; T-cadherin; PB-cadherin; cadherin-15; T-cadherin; Cadherin; desmoglein; desmocollin; desmocollin; desmocollin; alcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                               PB-cadherin cell adhesion recognition cyclic peptide SEQ ID NO:4040.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 72; Page 193; 252pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-CA000363,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-00073040
                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gour BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-038791/03.
                                                                                                                                                                                                                                                                                                                                                                                 Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                           Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                         W09957149-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-MAY-1999;
                                         02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-NOV-1999
                                                                                                                                                                                                                                                                                                      Synthetic
    AAY62757;
```

Byers S;

```
The present invention describes cadherin modulating agents (MA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

cerecognition (CAR) sequence. The MAs can be used for modulating

crecognition (CAR) sequence. The MAs can be used for e.g.

inhibiting adhesion of nonclassical-cadherin expressing cells in a

mammal, enhancing delivery of a drug through the skin of a mammal,

chhancing delivery of a drug to a tumour in a mammal, treating cancer in

a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting

cangiogenesis in a mammal, inducing apoptosis in a nonclassical cadherin-

expressing cell, preventing or treating obesity in a mammal, stimulating

blood vessel regression in a mammal, enhancing drug delivery to the

central nervous system, treating a demyelinating neurological disease,

increasing vasopermeability in a mammal, enhancing adhesion of

contassical cadherin-expressing cells, inhibiting synaptic stability in

a mammal, or preventing pregnancy in a mammal. They can also be used for

c.g. enhancing or directing neurite outgrowth, facilitating wound healing

c.g. reducing scar tissue, or enhancing adhesion of foreign tissue in a

mammal. They can also be used for treating a psoriasis, arthritis, age

related macular degeneration, multiple sclerosis and diabetes. The
                                                                                                                                                                            Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin, cadherin-5; cadherin-6; cadherin-7; cadherin-12; cadherin-15; T-cadherin; PB-cadherin; cadherin-12; cadherin; Cadherin; protocadherin; cadherin; cadherin; protocadherin; desmoglelin; desmocollin; calcium binding; cancer; tumour; obesity; rheumatoid archritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                         Cadherin-15 cell adhesion recognition cyclic peptide SEQ ID NO:2154.
                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 60; Page 188; 252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Byers S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-CA000363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-00073040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gour BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-038791/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9957149-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                  Synthetic
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
```

; 0

Score 23; DB 3; Length 6; Pred. No. 1.8e+06; 0; Mismatches 2; Indels

0

60.5%; ilarity 66.7%; Conservative (

```
Farnesyl; transferase; FT; inhibitor; p21ras; rat.
                                                                                                                                                                           Farnesyl-protein transferase inhibitor (25).
                                                                         AAR15772 standard; protein; 4 AA.
                                                                                                                                                                                                                                                                                                                                                               (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                       Goldstein JL,
 1 CTPRVC
                                                                                                                         25-MAR-2003
09-JAN-2003
29-JAN-1992
                                                                                                                                                                                                                                                                                                   18-APR-1990;
                                                                                                                                                                                                                                                                                                                          18-APR-1990;
20-NOV-1990;
                                                                                                                                                                                                                                                   WO9116340-A.
                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                       Brown MS,
                                                                                                   AAR15772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR49769;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR49769
              음
                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is a peptide fragment derived from domain 1 of human beta-2 glycoprotein, a phospholipid binding serum protein. Isolated domain 1 of beta-2 GPI protein binds to and inhibits beta-2 GPI-dependent antiphospholipid antibodies. The fragments are useful as toleragens when they bind to the antibodies at the surface of a B call and triggers B cell anergy. The polypeptides and mimetics can be used for treating disorders associated with beta 2GPI-dependent aPL-associated pathologies, e.g. thrombosis, recurrent foetal loss, thrombocytopenia or autoimmune diseases such as systemic lupus erythematosus. The polypeptides can also be used to detect and purify antibodies. They can also be used in
products can also be used for detection and diagnosis and in bioreactors. AF406592 to AF406472 represent specifically claimed peptides, and AAA06573 to AAV64643 and AAZ33183 to AAZ33186 represent sequences used in the exemplification of the present invention
                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                         Human beta-2 glycoprotein I; beta-2 GPI; toleragen; B cell anergy; beta-2 gPI-dependent antiphospholipid antibody; thrombosis; recurrent foetal loss; thrombocytopenia; autoimmune disease; systemic lupus erythematosus; coagulation assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated domain 1 beta-2 GPI polypeptides, used for inhibiting antiphospholipid antibodies for treating, e.g. thrombosis.
                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                 Peptide 1 derived from domain 1 of human beta-2 glycoprotein I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Linnik MD
                                                                                  60.5%; Score 23; DB 3; Length 6; 66.7%; Pred. No. 1.8e+06; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jones DS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Marquis DM, Iverson GM, Victoria EJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Page 19; 158pp; English.
                                                                                                                                                                                                                        AAY44431 standard; peptide; 6 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0088656P.
98US-0103088P.
99US-00328199.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US013194
                                                                                                                                                                                                                                                                        22-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (LJOL-) LA JOLLA PHARM CO
                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-116542/10
                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         coagulation assays
                                                                                                                                     CVPLTC 6
                                                                                                                                                              CDELTC 6
                                                            Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-JUN-1998;
05-OCT-1998;
08-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                WO9964595-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                         16-DEC-1999.
                                                                                                                                                                                                                                                 AAY44431;
                                                                                                              Matches
                                                                                                                                                                                                   RESULT 11
                                                                                                                                                                                                            AAY44431
ID AAY
888888
                                                                                                                                      ઠે
                                                                                                                                                           셤
```

Reiss Y;

90US-00510706 90US-00510706.

(first entry)

(revised) (revised)

```
ö
                                                                                                                                                                                             This peptide or the peptides represented in AAR15751-81, AAR14723 and AAR14711 inhibit the rat FTs represented in AAR14712-22. They show FT inhibition at an ICSO of 0.01-10 microm. The most potent inhibitors are ones in which phenylalanine occurs at the third position of a tetrapeptide whose N-terminus is cysteine. The inhibitors have a farnesyl acceptor or inhibitor sequence within its structure and are capable of inhibiting the farnesylation of p21ras by FT. See also AAR14711-23 and AAQ14541-47. (Updated on 09-003 to add missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                 Compsn. comprising purified farnesyl-protein transferase - used to inhibit attachment of farnesyl moiety to RAS protein in malignant cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 22; DB 2; Length 4;
Pred. No. 1.8e+06;
1; Mismatches 0; Indels
                                                                                                                                                   Claim 25; Page 68; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR49769 standard; peptide; 4 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Farnesyltransferase-inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h 57.9%;
Similarity 75.0%;
3; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (revised)
(first entry)
                                                                                                       treat cancer.
WPI; 1991-339750/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CVPL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CVPM 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-MAR-2003
08-AUG-1994
```

ö

Gaps

.

Score 23; DB 3; Length 6; Pred. No. 1.8e+06; 0; Mismatches 3; Indel8

60.5%; 50.0%;

3; Conservative

CVPLTC 6

Query Match Best Local Similarity Matches 3; Conserv

```
transferase. They all obey a generic formula for the C-terminal sequence of 4-10 amino acid inhibitory peptides; the formula is -CAAX, where C=cysteine, A= any aliphatic, aromatic or hydroxy amino acid and X= any normal amino acid. Farnesyl transferase is involved in the farnesylation of various cellular proteins including the cancer related ras proteins. The transforming activity of ras is dependent on the localisation of the protein to membranes, a property which is thought to be dependent upon the addition of farnesyl groups. The peptide inhibitors are useful for treating cancers and ras-related cancers in particular. (Updated on 25-MAR-2003 to correct Pf field.)
       New farnesyl transferase inhibitor peptide(s) - based on farnesyl acceptor substrate carboxy terminal sequences, used for the treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW04433-W04465 are peptide inhibitors of farnesyl transferase (FT) activity. The peptides block the attachment of prenyl groups to ras proteins in malignant cells of patients suffering from cancer or a precancerous state and as such are used to treat cancer. The peptides were identified by determining the ability of candidate substances to inhibit a FT enzyme, by inhibiting the transfer of a farnesyl moiety t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Farnesyl transferase; inhibitor; cancer; tumour; neoplasia; prenyl; ras protein; K-ras B; malignant; detection; identification.
                                                                                                                     AAR77800, AAR77805-R77838 are tetrapeptide inhibitors of farnesyl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Assay for farnesyl transferase activity - by determining ability transfer farnesyl moiety to K-Ras B protein, partic. useful for identifying inhibitors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Farnesyl transferase peptide inhibitor used in cancer treatment.
                                                                                                                                                                                                                                                                                                                                                                                     57.9%; Score 22; DB 2; Length 4; 75.0%; Pred. No. 1.8e+06; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 34; 257pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  James GL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW04459 standard; peptide; 4 AA.
                                                                                  Claim 2; Col 62; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96WO-US005969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95US-00429964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goldstein JL,
                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 75.(3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1996-497642/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPL 4
                                                                                                                                                                                                                                                                                                                                                  Sequence 4 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K-RasB protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9634113-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-OCT-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Brown MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW04459;
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
                                                cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW04459
         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptides given in AAR49741-75, AAR49777-78 and AAR49785-88, which include a family of tetrapeptides based on the recognition site (AAR49776) of farnesyltransferase (FT), are potential anticancer agents that inhibit FT, thereby preventing expression of p21ras. (Updated on 25-MAR-2003 to
                                                                                                                                                                                                                                                                                                                                                                                New farnesyl-transferase inhibitors - used for inhibiting attachment of farnesyl moiety to a p21ras protein in malignant cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
Farnesyltransferase-inhibitor; farnesyltransferase; FT; p21ras;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 22; DB 2; Length 4;
Pred. No. 1.8e+06;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Farnesyl transferase inhibitor tetrapeptide, CVPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Farnesyl transferase; inhibitor; cancer; ras; p21
                                                                                                                                                                                                                                                                                                           Marsters JC;
                     ras protein; farnesylation; cancer therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 33; 183pp; English.
                                                                                                                                                                                                                                                                                                           Reiss Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brown MS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR77833 standard; protein; 4 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90US-00510706.
90US-00615715.
92US-00822011.
                                                                                                                                                                          93WO-US008062.
                                                                                                                                                                                                             92US-00935087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92US-00863169.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                (TEXA ) UNIV TEXAS SYSTEM (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                       Goldstein JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 75.(
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goldstein JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (revised)
                                                                                                                                                                                                                                                                                                                                            WPI; 1994-083105/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-206308/27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TEXA ) UNIV TEXAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FT, thereby prever correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||:
CVPM 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-APR-1990;
20-NOV-1990;
16-JAN-1992;
                                                                                             WO9404561-A1
                                                                                                                                                                        24-AUG-1993;
                                                                                                                                                                                                             24-AUG-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-APR-1992;
                                                                                                                                 03-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAR-2003
23-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US5420245-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAY-1995
                                                          Synthetic.
                                                                                                                                                                                                                                                                                                       Brown MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR77833;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Reiss Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
AAR77833
```

ઠ g ដ

ö

Gaps

```
Ouery Match 57.9%; Score 22; DB 2; Length 4; Best Local Similarity 75.0%; Pred. No. 1.8e+06; Matches 3; Conservative 1; Mismatches 0; Indels Qy 1 CVPL 4
| | | | :
| Db 1 CVPM 4
```

Search completed: April 1, 2005, 11:51:23 Job time : 118, secs

; 0

0; Gaps

THIS PAGE BLANK (USPTO)

```
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-761-636A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
US-10-006-869-1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-12
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1374, Ap
Sequence 1778, Ap
Sequence 1798, Ap
Sequence 3970, Ap
Sequence 4046, Ap
Sequence 1798, Ap
Sequence 3570, Ap
Sequence 3573, Ap
Sequence 3573, Ap
Sequence 3573, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 12, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                               April 1, 2005, 11:53:35 ; Search time 92 Seconds (without alignments) 21.626 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                      Published Applications AA:*

1: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
8: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
9: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
10: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
12: /cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/USO0_NEW_PUB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
15: /cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
16: /cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
17: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
18: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USOO_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*
           GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-12

US-10-006-869-1374

US-10-006-869-1374

US-10-006-869-3970

US-10-006-869-3970

US-10-006-869-3970

US-10-1395-032-198

US-10-395-032-3970

US-10-395-032-3970

US-10-395-032-3970

US-10-006-869-3573

US-10-006-869-3573

US-10-006-869-3573
                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                     1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                         - protein search, using sw model
                                                                                                                                                                                BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                           US-09-761-636A-12
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                      1 CVPLTC 6
                                                                                                                                                                                                                                                                     seq length: 0
seq length: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                 Scoring table:
                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                         OM protein
                                                                                                                                                          Sequence:
                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
```

```
14 23 60.5 6 15 US-10-95-022-040 Sequence 140, Ap 16 23 60.5 6 15 US-10-95-022-040 Sequence 140, Ap 17 23 60.5 6 15 US-10-95-022-040 Sequence 140, Ap 18 22 57.9 6 15 US-10-93-058-5 Sequence 140, Ap 18 22 57.9 6 14 US-10-031-089-5 Sequence 270, Ap 18 22 57.9 6 14 US-10-031-089-5 Sequence 2717, Ap 18 22 57.9 6 14 US-10-93-058-5 Sequence 2717, Ap 18 22 57.9 6 14 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-2719 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-286-286 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-286-286 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-089-286-286 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-286-286 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-08-286-286 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-08-286-286 Sequence 2717, Ap 18 22 57.9 6 15 US-10-93-08-286-286 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 10 US-09-911-83-186 Sequence 2717, Ap 18 22 57.0 6 11 US-10-73-131-52 Sequence 2717, Ap 18 22 57.0 6 11 US-10-73-131-52 Sequence 2717, Ap 18 22 57.0 6 11 US-10-73-131-52 Sequence 2717, Ap 18 22 57.0 6 11 US-10-73-131-52 Sequence 2717, Ap 18 22 57.0 6 11 US-10-73-131-52 Sequence 2717, Ap 18 22 57.0 6 11 US-10-93-40-69 Sequence 2717, Ap 18 22 57.0 6 11 US-10-93-40-69 Sequence 2717, Ap 18 22 57.0 6 11 US-10-93-40-69 Sequence 2717, Ap
```

```
RESULT 5
US-10-006-869-3970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-006-869-4046
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
US-10-395-032-1374
i Sequence 1374, Application US/10395032
i Sequence 1374, Application US/10395032
i Publication No. US20030229199A1
i GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
ITILE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
ITILE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
ITILE OF INVENTION: CAMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
ITILE OF INVENTION: CAMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
ITILE REFERENCE: 100086.407C9
CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT PILING DATE: 2003-03-21
NUMBER OF SEQ ID NOS: 4052
SEQ ID NO 1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
Sequence 1374, Application US/10006869
Evblication No. US20030082166A1
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C7
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PATCHIL IN VET. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-7 cell adhesion recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-7 cell adhesion recognition sequence US-10-395-032-1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 68.4%; Score 26; DB 14; Length 6; Best Local Similarity 66.7%; Pred. No. 1.3e+06; Matches 4; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68.4%; Score 26; DB 15; Length 6; 66.7%; Pred. No. 1.3e+06; Live 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-006-869-1798

Sequence 1798, Application US/10006869

Publication No. US20030082166A1

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CEPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CEPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-006-869-1374
                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 1374
                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4046, Application US/10006869

Sequence 4046, Application US/10006869

Publication No. US20030082166A1

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052

SEQ ID NO 4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Blaschuk, Orest W. APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew APPLICANT: Symonds, James Matthew APPLICANT: Symonds, James Matthew APPLICANT: GOUT, Barbara J. TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS FILE REFERENCE: 100086.4072. CURRENT APPLICATION NUMBER: US.10/006,869
CURRENT APPLICATION NUMBER: US.2001-12-03
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3970
                                                                                                                                                                                                                                                                                                    FEATURE:
OTHER INFORMATION: Representative cyclic modulating agent based on
CTHER INFORMATION: cadherin-12 cell adhesion recognition sequence
US-10-006-869-1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-14 cell adhesion recognition sequence US-10-006-869-3970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                        65.8%; Score 25; DB 14; Length 6; 66.7%; Pred. No. 1.38+06; 2; Indels ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65.8%; Score 25; DB 14; Length 6; 66.7%; Pred. No. 1.3e+06; 1ive 0; Mismatches 2; Indels
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS FILE REPERBENCE: 100086, 407C7
CURRENT APPLICATION NUMBER: US/10/006, 869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 3970, Application US/10006869; Publication No. US20030082166A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CDPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CDPKTC 6
```

```
1 CVPLTC 6
                                                                                            1 CVPLTC 6
                                                                                                                                     1 CDPKTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CDPKTC 6
                                                                                                                                                                                                           RESULT 9
US-10-395-032-4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-422-571-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                            8
                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3970, Application US/10395032

Fublication No. US20030229199A1

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
TAPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFREENCE: 100086.407C9
CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT FILING DATE: 2003-03-21
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3970
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12798, Application US/10395032
Fublication No. US2003022199A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Blanchuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPHERIN MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C9
CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT FILING DATE: 2003-03-21
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-14 cell adhesion recognition sequence US-10-395-032-3970
                                         FEATURE:

OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-10-006-869-4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-12 cell adhesion recognition sequence
                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65.8%; Score 25; DB 15; Length 6; 66.7%; Pred. No. 1.3e+06; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                           2; Indels
                                                                                                                                                           Score 25; DB 14; Length
Pred. No. 1.3e+06;
0; Mismatches 2; Indel
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                                                             Query Match
Best Local Similarity 66.7%;
                                                                                                                                                                                                              4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                         1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTC 6
                                                                                                                                                                                                                                                                                                     сректс 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CDPKTC 6
                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
US-10-395-032-1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
US-10-395-032-3970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-395-032-1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

```
APPLICANT: Ageneys, Inc.
APPLICANT: Ageneys, Inc.
APPLICANT: Ageneys, Inc.
APPLICANT: Ageneys, Inc.
APPLICANT: Challita-Eid, Pia M.
APPLICANT: Challita-Eid, Pia M.
APPLICANT: Jakobovits, Aya
APPLICANT: Ge, Wangmao
TITLE OF INVENTION: Bntitled 191P4D12(b) Useful in Treatment and Detection of
TITLE OF INVENTION: Cancer
TITLE OF INVENTION: Cancer
TITLE OF INVENTION: UNMBER: US/10/422,571
TITLE OF INVENTION: UNMBER: US60/404,306
FILE REPERENCE: 51158-2008-00
CURRENT FILING DATE: 2002-08-16
PRIOR FILING DATE: 2002-08-16
PRIOR FILING DATE: 2002-11-01
NUMBER OF SEQ ID NOS: 130
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                       ö
                                                                                                                                                                                                                                                                                  Sequence 4046, Application US/10395032
| Sequence 4046, Application US/2030229199A1
| Fublication No. US20030229199A1
| GENERAL INFORMATION:
| APPLICANT: Blaschuk, Orest W. | APPLICANT: Symonds, James Matthew APPLICANT: GOUR, Barbara J. | TITLE OF INVENTION: COMPOUNDS FOR MODULATING NONCLASSICAL | TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS | FILE REFERENCE: 100066.407C9 | CURRENT APPLICATION NUMBER: US/10/395,032 | CURRENT FILING DATE: 2003.03-21 | NUMBER OF SEQ ID NOS: 4052 | SOFTWARE: Patentin Ver. 2.0 | SEQ ID NO 4446 | LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ) OTHER INFORMATION: Representative cyclic modulating agent based on ; OTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-10-395-032-4046
                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65.8%; Score 25; DB 15; Length 6; 66.7%; Pred. No. 1.3e+06; tive 0; Mismatches 2; Indels
  Length 6;
                                                       2; Indels
Score 25; DB 15;
Pred. No. 1.3e+06;
0; Mismatches 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65.8%; Score 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 75, Application US/10422571
Publication No. US20040083497A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
  Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
```

```
) OTHER INFORMATION: Representative cyclic modulating agent based on ; OTHER INFORMATION: cadherin-15 cell adhesion recognition sequence US-10-006-869-2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60.5%; Score 23; DB 14; Length 6; 66.7%; Pred. No. 1.3e+06; Live 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 66.73,
Thes 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 66.77
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CDELTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CDELTC 6
                  1 CDPVSC
                                                                       RESULT 13
US-10-006-869-2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-006-869-4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3573, Application US/10395032
| Publication No. US20030229199A1
| GENERAL INFORMATION:
| APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew
| APPLICANT: Symonds, James Matthew
| APPLICANT: Symonds, James Matthew
| APPLICANT: Gour, Barbara J. |
| TITLE OF INVENTION: CADHERIN MEDIATED FUNCTIONS FILE REFERENCE: 100086.407C9 |
| TITLE OF INVENTION: CADHERIN MEDIATED FUNCTIONS |
| FILE REFERENCE: 100086.407C9 |
| CURRENT APPLICATION NUMBER: US/10/395,032 |
| NUMBER OF SEQ ID NOS: 4052 |
| SOFTWARE: Patentin Ver. 2.0 |
| LENGTH: 6 |
| LENGTH: 6 |
                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                          APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
IIILE OF INVENTION: COMPOUNDS RUD METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADABENIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C7
CURRENT APPLICATION NUMBER: US/10/006, 869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID MOS: 4052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion OTHER INFORMATION: recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion OTHER INFORMATION: recognition sequence
                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 50.0%; Pred. No. 1.3e+06; 3; Conservative 2; Mismatches 1; Indels
                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63.2%; Score 24; DB 15; Length 6; 50.0%; Pred. No. 1.38+06; Live 2; Mismatches 1; Indels
      Pred. No. 1.3e+06;
Mismatches 0;
100.0%; Preα. ....
tive 0; Mismatches
                                                                                                                                                                                                     ; Sequence 3573, Application US/10006869
; Publication No. US20030082166A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
    Best Local Similarity 100. Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 50.0°
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | |::|
CDPVSC 6
                                                                                         PLTC 6
                                                                 3 PLTC 6
                                                                                                                                                              RESULT 11
US-10-006-869-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-006-869-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-395-032-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMAT:
US-10-395-032-3573
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 3573
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                        APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew APPLICANT: Symonds, James Matthew APPLICANT: Gour, Barbara J. TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: PB-cadherin cell adhesion recognition sequence US-10-006-869-4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 23; DB 14; Length 6; Pred. No. 1.3e+06; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: 100086.407C7
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PATENTIN VET. 2.0
                                                                                                                                                                                                                                           ; Sequence 4040, Application US/10006869; Publication No. US20030082166A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 2154, Application US/10395032; Publication No. US20030229199A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
US-10-395-032-2154
```

1 CVPLTC 6

ð

```
ö
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gour. Barbara J.
TITLE OF INVENTION: COMPCUINS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REPRENENCE: 100086.407C9
CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT APPLICATION NUMBER: US/10/395,032
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2154
LENGTH: 6
THEN TYPE: PRT
CREANISM: Artificial Sequence
FEATURE:
ORGANISM: Artificial Sequence
FEATURE:
ORGANISM: Artificial Sequence
CHER INFORMATION: Representative cyclic modulating agent based on
OTHER INFORMATION: cadherin-15 cell adhesion recognition sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
60.5%; Score 23; DB 15; Length 6;
Best Local Similarity 66.7%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CVPLTC 6
| | | | |
1 CDELTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

Search completed: April 1, 2005, 12:03:58 Job time : 92 secs

셤

THIS PAGE BLANK (USPTO)

```
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CALRMRSIC
                                                                                                                                                                                                                                                                                                                                                                      US-09-760-599-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 34, Appl
Sequence 199, App
Sequence 199, App
Sequence 3614, Ap
Sequence 199, App
Sequence 25, Appl
Sequence 25, Appl
Sequence 21, Appl
Sequence 10, S190920
Patent No. 5506208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2, Appli
43, Appl
43, Appl
43, Appl
49, Appl
43, Appl
9, Appli
17, Appli
                                                                                        April 1, 2005, 11:13:06 ; Search time 17 Seconds (without alignments) 39.520 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 30,
Patent No. 519
Patent No. 550
Patent No. 519
Patent No. 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                        99282
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Issued Patents AA:*

(1. /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

(2. /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

(2. /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

(2. /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

(2. /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

(2. /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

(2. /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-760-599-34
US-09-256-754-199
US-09-042-107-199
US-09-187-859-3614
US-09-722-50D-199
US-09-722-50D-199
US-09-760-599-25
US-09-760-599-25
US-09-760-745A-199
US-08-489-434A-21
US-08-476-134A-30
5190920-26
5190920-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-377-081-2
US-07-98-903A-43
US-08-462-018-43
US-08-823-245-43
US-08-598-873-49
US-08-69-430-49
US-07-63-329A-43
US-09-760-599-9
US-09-760-599-36
US-09-760-599-36
US-09-760-599-36
US-09-760-599-36
US-09-760-599-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S-08-823-245-43
S-08-598-873-49
S-08-605-430-49
S-07-963-329A-43
                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                       513545 seqs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5506208-28
                                                               protein search, using sw model
                                                                                                                                                                                                                                          Gapop 10.0 , Gapext 0.5
                                                                                                                                                     US-09-761-636A-10
50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length DB
                                                                                                                                                                                          1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0 Maximum DB seq length: 9
                                                                                                                                                                                                                         BLOSUM62

      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Perfect score:
                                                               OM protein -
                                                                                                                                                                                               Seguence:
                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Result
No.
```

```
ö
                           3, Appl
3, Appl
3, Appl
4, Appl
7, Appl
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
US-09-258-754-199
is agequence 199, Application US/09258754
j Patent No. 6174687
is GENERAL INFORMATION:
j APPLICANT: Ruoslanti, Erkki
j APPLICANT: Rajotte, Daniel
j TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
j TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
j TITLE OF INVENTION: Methods of 1090258, 754
j CURRENT APPLICATION NUMBER: US/09/258, 754
j CURRENT FILING DATE: 1999-02-26
j EARLIER FILING DATE: 1999-02-26
j EARLIER PILING DATE: 1998-03-13
j NUMBER OF SEQ ID NOS: 452
j SEQ ID NO 199
j EXCTAMARE: PatentIN Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Larson Mr., Richard S.
TITLE OF INVENTION: Peptide Inhibitors of LFA-1/CAM-1 Interaction FILE REPERNCE: SCI200/4-ICIP
CURRENT APPLICATION NUMBER: US/09/760,599
CURRENT FILING DATE: 2001-01-17
NUMBER OF SEQ ID NOS: 56
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 34
LENGTH: 9
                                                                                      Sequence (
Sequence (
Sequence )
                                                                                                                           Sequence
Sequence
                                                                                                                                                               Sequence
Sequence
Sequence
                           Sequence
Sequence
                                                                                                                                                      Sequence
                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                    Sequence
                                                                           Sequence
                                                                Sequence
              Sequence
                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Description of Artificial Sequence:Synthetic US-09-760-599-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 26; DB 4; Length 9; Pred. No. 4.1e+05; 4; Mismatches 2; Indels
US-09-483-550B-9
US-09-483-550B-17
US-09-483-550B-17
US-09-064-L59-43
US-09-747-054-49
US-09-747-05-64
US-08-475-955-67
US-08-475-955-67
US-08-447-083-3
US-08-46-480-3
US-08-46-348A-3
US-08-46-348A-3
US-08-46-348A-3
US-08-46-348A-3
US-08-46-348A-3
US-08-46-680B-3
US-08-46-680B-3
US-08-46-680B-3
US-08-46-680B-3
US-08-46-680B-3
US-08-258-754-146
US-09-258-754-146
US-09-258-754-146
                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                              Sequence 34, Application US/09760599 Patent No. 6630447 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 33.3%;
Matches 3; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Artificial Sequence
  444444466666666666
```

```
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 44.4
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 55.6
Matches 5; Conservative
      |: : |||
1 CTFHIDSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |: : |||
1 CTFHIDSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-722-250D-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                            Sequence 199, Application US/09042107
Patent No. 6232287
GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Tissues
FILE REFERENCE: P-LJ 2892
CURRENT APPLICATION NUMBER: US/09/042,107
CURRENT FILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 436
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3614, Application US/09187859A

Patent No. 6358920

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4062.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion OTHER INFORMATION: recognition sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-258-754-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ) OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-042-107-199
                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                Query Match 50.0%; Score 25; DB 3; Length 9; Best Local Similarity 55.6%; Pred. No. 4.1e+05; Matches 5; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50.0%; Score 25; DB 3; Length 9; 44.4%; Pred. No. 4.1e+05; tive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50.0%; Score 25; DB 3; Length 9; 55.6%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                     1 CSVPLTSVC 9
                                                                                                                                                                                                            1 CSAYTTSPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CSAYTTSPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-187-859-3614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-187-859-3614
                                                                                                                                                                                                                                                                       RESULT 3
US-09-042-107-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 3614
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 199
LENGTH: 9
                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

. 0

Gaps

. 0

4; Conservative

1 CSVPLTSVC 9

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
US-09-839-542B-3614

Sequence 3614, Application US/09839542B
Factor No. 5659996
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086-407D1
CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
SEQ ID NO 3614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 199, Application US/09722250D
Sequence 199, Application US/09722250D
Fatent No. 6610651
GENERAL INFORMATION:
APPLICANT: Rucslahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Missues
TITLE OF INVENTION: Tissues
FILE REFERENCE: P-LJ 4514
CURRENT FILING NATE: 2000-11-22, 250D
CURRENT FILING DATE: 1998-03-13
FRIOR APPLICATION NUMBER: US 09/042,107
FRIOR APPLICATION NUMBER: US 09/042,107
FRIOR APPLICATION NUMBER: US 09/042,107
FRIOR PILING DATE: 1998-03-13
SOFTWARE: PARENTIN Ver: 2.0
SEQ ID NO 199
LENGTH: 9
TYPE: PRT
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
COTHER INFORMATION: Representative cyclic modulating agent based on OTHER INFORMATION: cadherin-related neuronal receptor cell adhesion COTHER INFORMATION: recognition sequence
US-09-839-542B-3614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-722-250D-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50.0%; Score 25; DB 4; Length 9; 44.4%; Pred. No. 4.1e+05; Live 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50.0%; Score 25; DB 4; Length 9; 55.6%; Pred. No. 4.1e+05; Live 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSAYTTSPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
US-09-760-599-25
```

```
Query Match
Best Local Similarity 55.0°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 831-494
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 6 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Philadelphia
STATE: Pennsylvania
COUNTRY: USA
                                                                                                                                                                                                                                             1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                 1 CSAYTTSPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-08-483-434A-21
SEQ ID NO 199
LENGTH: 9
                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-676-475A-199

Sequence 199, Application US/09676475A

Patent No. 6784153

GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
APPLICANT: Pasqualini, Renata
APPLICANT: Rajotte, Daniel
TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
TITLE OF INVENTION: Membrane Dipeptidase
FILE REFERENCE: P-LA 4377
CURRENT APPLICATION NUMBER: US/09/676,475A
CURRENT FILING DATE: 1998-03-13
FRIOR FILING DATE: 1998-03-13
FRIOR FILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 452
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 25, Application US/09483550B

Sequence 25, Application US/09483550B

Sequence 25, Application US/09483550B

Setent No. 649592

TITUS OF INVENTION:

FILE REFERENCE: SCI200/4-001

CURRENT APPLICATION NUMBER: US/09/483,550B

CURRENT FILING DATE: 2000-01-14

NUMBER OF SEQ ID NOS: 33

SEQ ID NO 25

LENGTH: 9
  PATENTY OF GEORGY
PRICANT: LATSON MI., Richard S.
APPLICANT: Larson Mr., Richard S.
TITLE OF INVENTION: Peptide Inhibitors of LFA-1/CAM-1 Interaction FILE REPERENCE: SC1200/4-1CIP CURRENT APPLICATION NUMBER: US/09/760,599
CURRENT FILING DATE: 2001-01-17
NUMBER OF SEQ ID NOS: 56
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 25
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: Description of Artificial Sequence:Synthetic US-09-760-599-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                                                                                                                                                                                                                                                                                              Score 25; DB 4; Length 9; Pred. No. 4.1e+05; 3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50.0%; Score 25; DB 4; Length 9; 33.3%; Pred. No. 4.1e+05; Live 3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                        3; Mismatches
Sequence 25, Application US/09760599
                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                            Query Match 50.0%;
Best Local Similarity 33.3%;
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | : : |:|
1 CMLRMNSIC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | : : |:|
CMLRMNSIC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
US-09-483-550B-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-483-550B-25
                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

```
TYPE: 1

TYP
```

```
APPLICATION NUMBER: US/08/408,181
FILING DATE: 22-MAR-1995
PRIOR APPLICATION DATE:
APPLICATION NUMBER: 131,565
FILING DATE: 04-OCT-1993
APPLICATION NUMBER: 895,764
FILING DATE: 09-JUN-1992
APPLICATION NUMBER: 895,764
FILING DATE: 24-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best_Local Similarity
Matches 4; Conserv
                                  CSVP 4
                                                                              CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
5190920-26
;Patent No. 5190920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;SEQ ID NO:28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO:26:
                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5506208-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5190920-26
                                                                                                                                                                                                                                                GEORGE P
                                  8
                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: EYAL, JACOB
APPLICANT: HAILTON, BURGE K.
APPLICANT: HAILTON, BURGE P.
TITLE OF INVENTION: THEREOF
ITLIAGO F INVENTION: THEREOF
ITLIAGO F INVENTION: THEREOF
FILLS REFERENCE: 07206-0009
CURRENT PILING DATE: 1995-06-07
FRIOR PILING DATE: 1990-09-24
FRIOR FILING DATE: 1990-09-24
FRIOR FILING DATE: 1990-09-24
FRIOR APPLICATION NUMBER: 07/483,527
FRIOR FILING DATE: 1995-06-25
FRIOR PILING DATE: 1995-01-24
FRIOR APPLICATION NUMBER: 08/450,738
FRIOR PILING DATE: 1996-01-24
FRIOR PILING DATE: 1994-01-24
FRIOR FILING DATE: 1994-01-24
FRIOR FILING DATE: 1994-01-24
FRIOR PILING DATE: 1994-01-24
FRIOR FILING DATE: 1994-01-24
FRIOR PILING DATE: 1994-01-24
FRIOR FILING DATE: 1994-01-24
                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence: synthetic; CTHER INFORMATION: analog of thrombospondin US-08-476-134A-30
                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                        0; Indels
                                                                    Query Match 48.0%; Score 24; DB 1; Length 6; Best Local Similarity 100.0%; Pred. No. 4.1e+05; Matches 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: METHOD FOR USING SYNTHETIC ANALOGS
OF THROMBOSPONDIN FOR INHIBITING METASTASIS ACTIVITY
NUMBER OF SEQUENCES: 32
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/587,197
FILING DATE: 24-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
5190920-26
;Patent No. 5190920
; APPLICANT: BYAL, JACOB, HAMILTON, BRUCE K.;TUSZYNASKI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48.0%; Score 24; DB 6; Le
100.0%; Pred. No. 4.1e+05;
live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             48.0%; Score 24; DB 3; Le
100.0%; Pred. No. 4.1e+05;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                 Sequence 30, Application US/08476134A Patent No. 6239110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100...
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 4; Conservative
MOLECULE TYPE: peptide
                                                                                                                                                                    1 CSVP 4
                                                                                                                                                                                                              CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CSVP 4
       ;
US-08-483-434A-21
                                                                                                                                                                                                                                                                                RESULT 11
US-08-476-134A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO:26:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5190920-26
                                                                                                                                                                    à
                                                                                                                                                                                                              업
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                       TITLE OF INVENTION: METHOD FOR USING SYNTHETIC ANALOGS OF; THROMBOSPONDIN FOR INHIBITING ANGIOGENESIS ACTIVITY
NUMBER OF SEQUENCES: 45
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: METHOD FOR USING SYNTHETIC ANALOGS OF;
THOMOBOSPONDIN FOR INFIBITING ANGIOGENESIS ACTIVITY
NUMBER OF SEQUENCES: 45
CURRENT APPLICATION DATA:
PLING DATE: 22-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48.0%; Score 24; DB 6; Length 6; 100.0%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48.0%; Score 24; DB 6; Length 6; 100.0%; Pred. No. 4.1e+05; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: METHOD FOR USING SYNTHETIC ANALOGS
OF THROMBOSPONDIN FOR INHIBITING METASTASIS ACTIVITY
NUMBER OF SEQUENCES: 32
CURRENT APPLICATION DATE: US/08/587,197
FILING DATE: 24-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: EYAL, JACOB; HAMILION, BRUCE K.; TUSZYNASKI, ;GEORGE P.
RESULT 15
5506208-28
; Patent No. 5506208
; APPLICANT: EYAL, JACOB; HAMILTON, BRUCE K.; TUSZYNSKI,
;GEORGE P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 100.0%; Pred. No. 4.1
4; Conservative 0; Mismatches
```

```
·
0
                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                       Query Match 48.0%; Score 24; DB 6; Length 6; Best Local Similarity 100.0%; Pred. No. 4.1e+05; Matches 4; Conservative 0; Mismatches 0; Indels
| APPLICATION NUMBER: 131,565
| FILING DATE: 04-0CT-1993
| APPLICATION NUMBER: 995,764
| FILING DATE: 09-JUN-1992
| APPLICATION NUMBER: 587,197
| FILING DATE: 24-SEP-1990
| SEQ ID NO:28:
| LENGTH: 6
                                                                                                                                                                                                                                                              1 CSVP 4
||||
1 CSVP 4
                                                                                                                                                                                                                                                                ò
```

Search completed: April 1, 2005, 11:24:41 Job time : 17 secs

g

THIS PAGE BLANK (USPTO)

GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

protein search, using sw model OM protein - April 1, 2005, 11:31:38 ; Search time 39 Seconds (without alignments) 17.270 Million cell updates/sec Run on:

US-09-761-636A-11 Title:

1 CVPLTSC 7 Perfect score: Sequence: **BLOSUM62** Scoring table:

Gapop 10.0 , Gapext 0.5

283416 segs, 96216763 residues Searched:

457 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 7

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
: pir4:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

aggrecan - bovine
R-phycoerythrin be
MHC H2.K-k cell su
hypothetical prote
schwannomin - mous
tyrosine-melanocyt R-phycoerythrin ga Y protein - human mabinlin II chain ribulose-bisphosph Ig kappa chain V-I vicilin 57K chain acetylcholinestera major protein anti laminin B1 - weste seed protein ws-5 dihydrofolate redu DNA topoisomerase tryptophyllin, bas catch-relaxing pep hypothetical L2 pr glycoprotein compo MHC H2-L antigen ~ glycogen phosphory laminin Bl – weste virotoxin - destro R-phycoerythrin al metallothionein-A R-phycoerythrin al myomodulin - Calif Description SUMMARIES 165546 B34818 A34026 E60274 S42620 C22565 I67345 S08606 I54357 A32039 A60521 I49421 E61491 I48105 I48086 A61081 ECMUCR 156695 B22565 838516 Query Match Length Score Result No.

Ig mu chain V regi pallidipin - assas cadmium-binding pe	actin I - malaria hemoglobin, extrac phosphorotein. bo	ユユゼ	35K structural pro halo-toxin - Pseud lipopeptide WS1279	angiotensin-conver dihydrofolate redu protamine Pl - gor
S43959 S55238 A33882 B37988	B45525 S65726 S11127	H44817 F44817 B44817	D44817 A61049 JU0355	PQ0008 A31263 I37027
	0.000			
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			9 21.4 9 21.4 21.4
331 321	. 4 . 0 . 6	. w w w c & o	4 4 4 0 1 2	44 44 5

ALIGNMENTS

```
ö
R-phycoerythrin alpha-2 chain - red alga (Gastroclonium coulteri) (fragment) C;Species: Gastroclonium coulteri C;Species: Gastroclonium coulteri C;Species: Gastroclonium coulteri C;Species: Orax-1988 #sequence_revision 07-Mar-1988 #text_change 23-Mar-1993 C;Accession: B22565 R;Klotz, A.V.; Glazer, A.N. 1985 R;Klotz, A.V.; Glazer, A.N. 3, Title: Characterization of the blinn attachment sites in R-phycoerythrin. A;Reference number: A22565; MUID:85182601; PMID:3886644 A;Accession: B22565 A;Molecule type: protein A;Residues: 1-5 <KLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                47.6%; Score 20; DB 2; Length 5; 100.0%; Pred. No. 2.8e+05; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 3; Conserv
```

1 CVP 3 셤 Alycoprotein component 16/major fat-globule membrane protein/MFG-E8 homolog - bovine (fre glycoprotein component 16/major fat-globule membrane protein/MFG-E8 homolog - bovine (fre c) Species: Bos primigenius taurus (cattle)
C;Bate: 19-Nov-1993 #sequence_revision 18-Nov-1994 #text_change 07-Feb-1997
C;Accession: H48394
R;Mather, I.H.; Banghart, L.R.; Lane, W.S.
B;Ochem. Mol. Biol. Int. 29, 545-554, 1993
A;Title: The major fat-globule membrane proteins, bovine components 15/16 and guinea-pig A;Ttle: The major fat-globule membrane proteins, bovine components 15/16 and guinea-pig A;Reference number: A48394; MUID:93250576; PMID:8485470
A;Accession: H48394
A;Acces

Gaps .. 0 35.7%; Score 15; DB 2; Length 6; 50.0%; Pred. No. 2.8e+05; tive 0; Mismatches 3; Indel8 Local Similarity 50.0 nes 3; Conservative Query Match Best Local S: Matches 3,

ö

2 VPLTSC 7 VELLGC ò g

RESULT

ò g

```
major protein antigen MPT63 - Mycobacterium tuberculosis (fragment)
C;Species: Mycobacterium tuberculosis
C;Species: Mycobacterium tuberculosis
C;Baccession: B60274
R;Nagai, S.; Wiker, H.G.; Harboe, M.; Kinomoto, M.
Infect. Immun. 59, 372-382, 1991
A;Title: Immun. 59, 372-382, 1991
A;Fitle: Londition and partial characterization of major protein antigens in the culture A;Feference number: A60274; MUID:91099989; PMID:1898899
A;Accession: E60274
A;Status: preliminary
A;Accession: A60274
A;Accession: B60274
A;Accession: B60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      digrecan - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Species: Bos primigenius taurus (sa. Jul-1998 #text_change 24-Jul-1998
C; Accession: S42620
R; Vogel, K.G.; Sandy, J.D.; Pogany, G.; Robbins, J.R.
Matrix Biol. 14, 171-179, 1994
A; Title: Aggrecan in bovine tendon.
A; Reference number: S42620
A; Rocession: S42620
A; Rocession: S42620
A; Rocession: S42620
A; Residues: 1-7 < VOG>
A; Residues: 1-7 < VOG>
C; Keywords: cartilage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "E-phycoerythrin beta-1 chain - red alga (Gastroclonium coulteri) (fragment) C;Species: Gastroclonium coulteri C;Species: Gastroclonium coulteri C;Species: Gastroclonium coulteri C;Species: Garar-1998 #sequence_revision 07-Mar-1998 #text_change 23-Mar-1993 C;Accession: C22565

R;Klotz, A.V.; Glazer, A.N.
J. Biol. Cham. 260, 4856-4883, 1985
A;Fitle: Characterization of the bilin attachment sites in R-phycoerythrin. A;Reference number: A22565; MUID:85182601; PMID:3886644
A;Molecule type: protein
A;Residues: 1-6 <KLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33.3%; Score 14; DB 2; Length 5; 66.7%; Pred. No. 2.8e+05; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31.0%; Score 13; DB 2; Length 7; 50.0%; Pred. No. 2.8e+05; Live 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28.6%; Score 12; DB 2; Length 6; 25.0%; Pred. No. 2.8e+05; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 31.0
Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 1; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 PLTS 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 PIVS 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 LTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 PLT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
167345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
MHC H-L antigen - mouse (fragment)

Cispecies: Mus musculus (house mouse)

Cispecies: Mus musculus (house mouse)

Cipacies: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999

Cisacession: 165546

Rikimura, A.; Israel, A.; Le Bail, O.; Kourilsky, P.

Cell 44, 261-272, 1986

A;Title: Detailed analysis of the mouse H-2Kb promoter: Enhancer-like sequences and theil A;Reference number: 152778; MUID:86106202; PMID:3510743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
A34026
A34026
A34026
C.59ecies: Torpedo californica (Pacific electric ray)
C.59ecies: Torpedo californica (Pacific electric ray)
C.50ecies: Torpedo californica (Pacific electric ray)
C.50ecies: Torpedo californica (Pacific electric ray)
C.50ecies: Torpedo californica (Pacific electric ray)
C.50ecesion: A34026
C.Accession: A34026
C.Accession: A34026
A.71tle: Divergence in primary structure between the molecular forms of acetylcholineste A.71tle: Divergence in primary structure between the molecular forms of acetylcholineste A.71tle: Divergence number: A34026
A.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
B34818
C;Bals 18
C;Species: Cajanus cajan (pigeon pea)
C;Species: Cajanus cajan (pigeon pea)
C;Date: 13-Unl-1990 #sequence_revision 13-Jul-1990 #text_change 30-Sep-1993
C;Accession: B34818
B;Ochem. Biophys. Res. Commun. 166, 1446-1452, 1990
A;Title: Unmusual denaturation properties of vicilin from Cajanus cajan.
A;Reference number: A34818; WuID:90165956; PMID:2306256
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-7 <MAM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Molecule type: DNA
A,Residues: 1-6 <RES>
A,Cross-references: GB:M12483; NID:g199565; PIDN:AAA39663.1; PID:g554234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15; DB 2; Length 7; Pred. No. 2.8e+05; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35.7%; Score 15; DB 2; Length 7; larity 66.7%; Pred. No. 2.8e+05; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35.7%; Score 15; DB 2; I
75.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35.7%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 75.00
The 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 66.7
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 VPLT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 VPCT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |:|
5 TAC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TTC 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
```

ò g

ö

.. 0

셤

```
Tyrosine-melanocyte-stimulating hormone release-inhibiting factor 1 - bovine (Species: Bos primigenius taurus (cattle) (Species: Bos 1-301-1989 #sequence_revision 31-301-1989 #text_change 18-Aug-2000 (Speciesion: A3203) (Speciesion: A3203) (Speciesion: A3203) (Speciesion: A3203) (Speciesion: A3203) (Species: A320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glycogen phosphorylase (EC 2.4.1.1), muscle - mullet (Liza ramada) (fragment)
N.Alternate names: glycogen phosphorylase b
Cipacise: Liza ramada
Cipacise: Liza ramada
Cipate: 17.Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004
Cipate: 17.Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004
Cipate: 17.Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004
Cipate: 17.Apr-1993 #sequence_revision 17.Apr-1990
Comp. Banante, L. Banante, I.V.
Comp. Banante, L. Banante, L. B. S. 295-301, 1990
A;fitle: Purification and characterization of glycogen phosphorylase B from skeletal musc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 1-5 <BON>
C;Keywords: glycosyltransferase; hexosyltransferase; phosphoprotein
F;3/Binding site: phosphate (Ser) (covalent) (by phosphorylase b kinase) #status experime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: 149421
R;Ko, M.S.; Wang, X.; Horton, J.H.; Hagen, M.D.; Takahashi, N.; Maezaki, Y.; Nadeau, J.H.
Mamm. Genome 5, 349-355, 1994
A;Title: Genetic mapping of 40 cDNA clones on the mouse genome by PCR.
A;Reference number: 148934; MUID:94319082; PMID:8043949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        laminin B1 - western wild mouse (fragment)
C;Species: Mus spretus (western wild mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Accession: I49421
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-6 <RES>
A;Cross-references: EMBL:U05736; NID:g497073; PIDN:AAB60477.1; PID:g642829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26.2%; Score 11; DB 2; Length 5; larity 100.0%; Pred. No. 2.8e+05; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26.2%; Score 11; DB 2; Length 4; 100.0%; Pred. No. 2.8e+05; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: A60521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ო
                                                                           1 VP 2
               2 VP 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 VP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
VP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S:
Matches 2
                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                                                       A32039
                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 schwannomin - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999
C;Accession: 154357
R;Huynh, D.P.; Nechiporuk, T.; Pulst, S.
R;Huynh, D.P.; Nechiporuk, T.; 1994
A;Title: Alternative transcripts in the mouse neurofibromatosis type 2 (NP2) gene are conversed on number: 154357; MUID:95072570; PMID:7981675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein 2 estrogen receptor 5'-region - chicken C;Species: Gallus gallus (chicken) C;Species: Gallus gallus (chicken) C;Date: 02-Dec-1993 #sequence_revision 10-Nov-1995 #text_change 16-Aug-2004 C;Accession: 808606 R;Krust, A.; Green, S.; Argos, P.; Kumar, V.; Walter, P.; Bornert, J.M.; Chambon, P. R;Krust, A.; Green, S.; Argos, P.; Kumar, V.; Walter, P.; Bornert, J.M.; Chambon, P. A;Title: The Chicken oestrogen receptor sequence: homology with v-erbA and the human oes A;Accession: 808606
MHC H2-K-k cell surface glycoprotein - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999
C;Accession: 167345
R;Archibald, A.L.; Thompson, N.A.; Kvist, S.
R;Archibald, A.L.; Thompson, N.A.; Kvist, S.
A;Teterie: A single nucleocide difference at the 3' end of an intron causes differential A;Reference number: 153243; MUID:86247587; PMID:3013627
A;Accession: 167345
A;Accession: I67345
A;Accession: Lofate: DNA
A;Residues: 1-6 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <KRNA
A;Cross-references: EMBL:X03805; NID:g63378; PIDN:CAA27432.1; PID:g584490
                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:M26859; NID:g199439; PIDN:AAA39612.1; PID:g387458
C;Genetics
A;Introns: 6/1
C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,Cross-references: GB:L28838; NID:g454836; PIDN:AAA57150.1; PID:g601923 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 12; DB 2; Length 6;
Pred. No. 2.8e+05;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 26.2%; Score 11; DB 2; Length 4; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28.6%; Score 12; DB 2; I ilarity 50.0%; Pred. No. 2.8e+05; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 50.00,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Residues: 1-4 < RES >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 LAHC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LPDC 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Accession: I54357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       154357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

```
RESULT 15
B61491
Seed protein ws-5 - winged bean (fragment)
Species: Psophocarpus tetragonolobus (winged bean)
C;Species: Psophocarpus tetragonolobus (winged bean)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 07-Oct-1994
C;Accession: E61491
J. Protein Chem. 8, 115-130, 1989
A;Title: Microsequence analysis of winged bean seed proteins electroblotted from two-dim A;Reference number: A61491; MUID:89351606; PMID:2765119
A;Accession: E61491
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-7 <HIR>
C;Keywords: glycoprotein; seed
                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                               ..
Query Match 26.2%; Score 11; DB 2; Length 6; Best Local Similarity 33.3%; Pred. No. 2.8e+05; Matches 1; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 26.2%; Score 11; DB 2; Length 7; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 2; Conservative 0; Mismatches 0; Indels
                                                                                                        5 TSC 7
::|
3 STC 5
                                                                                                              ò
```

Search completed: April 1, 2005, 11:39:37 Job time : 40 secs

2 VP 3

```
azotobacter
nocardia la
borrelia bu
rous sarcom
litoria rub
mytilus edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sepia offic
allium asca
conus imper
actinobacil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gallus gall
influenza a
human herpe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human adeno
human adeno
human adeno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                litoria rub
arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              litoria rub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pachymedusa
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lycopersico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 eisenia foe
mytilus edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  streptomyce
rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  taraxacum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                          April 1, 2005, 11:25:18 ; Search time 115 Seconds (without alignments) 31.170 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               042564
P82096
P82096
Q67113
P821310
P83451
P83451
P83451
P83451
P83451
P82065
P82065
P70814
P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P83569
P84071
P58803
O50556
Q54248
O55184
Q9yiq9
Q9yir0
Q9yir0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              066113
                                                                                                                                                                                                                                                                                                               174
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                             1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            066113
004254
E101_LITRU
PARP_CHICK
067113
WNP1_LEPDE
TPFY_PACDA
08NHH7
09NHH7
P93231
TYS1_LITRU
09C5B3
TYS1_LITRU
09C5B3
TYS1_LITRU
09C5B3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G07624
E103 LITRU
CIP1 MYTED
CIP2 MYTED
SAPP SEPOF
ASCL ALLAS
BRHP_CONIM
                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                               - protein search, using sw model
                                                                                                                                                                                                                                             Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                            UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                         US-09-761-636A-11
42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              %
Query
Match Length DB
                                                                                                                                                                                             CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                              seq length: 0 seq length: 7
                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                             OM protein
                                                                                                                                                                                                                                                                                                                                              Minimum DB
Maximum DB
                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
```

	U1-NOV-1996 (TERMBLEEL 01, Created) 01-NOV-1996 (TERMBLEEL 01, Last sequence update) 01-DEC-2001 (TERMBLEEL 19, Last annotation update) C-terminus of the viral replicase (Fragment). Cherry leaf roll virus. Viruses; saRNA positive-strand viruses, no DNA stagnepovirus; Subgroup C.	SECULENCE FROM N.A. STRAIN=Walnut; MEDLINE=96124520; PubMed=8560786; Borja M., Sanchez F., Rowhani A., Bruening G., Long, nearly identical untranslated sequences regions of the genomic RNAs of cherry leafroll strain)."; Virus Genes 10:245-252(1995).	SEQUENCE FROM N.A. STRAIN=Walnut; Borja M.; Borja M.; EMBL; Z34265; CAA84019.1; NON TER 1 SEQUENCE 7 AA; 800 MW; 7417672EBDC6D740 C	ch 40.5%; Score 17; DB 18.milarity 66.7%; Pred. No. 1.66 2; Conservative 1; Mismatches 1 CVP 3 4 CLP 6	11. 2 645 647 648 648 64264 642564; 61-JAN-1998 (TrEMBLrel. 05, Created) 61-JAN-1998 (TrEMBLrel. 05, Last sequence update) 61-JUN-2003 (TrEMBLrel. 24, Last amnotation update) 7 Augustologe-gated sodium channel alpha subunit (FN Dame-Scnda, Pugu rubripes (Japanese pufferfish) (Takifugu rubripes) Fugu rubripes (Japanese pufferfish) (Takifugu rubripes)
100	DI 01-NOV-1 DI 01-NOV-1 DI 01-DEC-2 OS Cherry 1 OC VINSES; OC NEPOVITU	RP SEQUENCE FRO RC STRAIN=Walnu RX MEDLINE=9612 RA BOTJA M., Sa RT "Long, near! RT regions of t Strain)."; RL virus Genes RN (21		Query Match Best Local s Matches 2 Qy 1	RESULT 2 042564 ID 042564; AC 042564; DT 01-JAN-1D T 01-JAN-1D T 01-JAN-1D T 01-JAN-1D CON Name-Scrib CON

Gaps

ö

ò

```
SEQUENCE FROM N.A.
MEDLINE=81001892; PubMed=7407922; DOI=10.1016/0092-8674(80)90486-9;
Dhar R., Chancock R.M, Lai C.-J.;
"Nonviral oligonucleotides at the 5' terminus of cytoplasmic influenza viral mRNA deduced from cloned complete genomic sequences.";
Cell 21:495-500(1980).
                             Dockray G.J., Reeve J.R. Jr., Shively J., Gayton R.J., Barnard C.S., antibodies to PRRFamide.",

"A novel active pentapeptide from chicken brain identified by antibodies to PRRFamide.",

Nature 305:328-330(1983).

-!- SUBCELLULAR LOCATION: Secreted.

-!- SUBCELLULAR LOCATION: Secreted.

-!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide) family.

GO: 0007218; P: neuropeptide signaling pathway; TAS. Amidation; Direct protein sequencing) Neuropeptide.

Amidation; Direct protein sequencing) Neuropeptide.

SEQÜENCE 5 AA; 645 MW; 69D4073767400000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human herpesvirus 1 (strain KOS) (HHV-1) (Human herpes simplex virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Influenza virus type A (Udorn/72) hemagglutinin (seg 4) cDNA, 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Capsid assembly and DNA maturation protein (Virion protein UL38)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
Influenzavirus A.
NCBI_TaxID=11320;
                                                                                                                                                                                                                                                            28.6%; Score 12; DB 1; Length 5; 66.7%; Pred. No. 1.6e+06; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28.6%; Score 12; DB 2; Length 7; 50.0%; Pred. No. 1.6e+06; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirinae; Simplexvirus.
NCBI_TaxID=10306;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 AA; 834 MW; 605EB0544EA40030 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1996 (TrEMBLrel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Capsid protein VP19C) (Fragment). Name=UL38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; M25045; AAA43202.1; -.
                                                                                                                                                                                                                                                                                                   2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 1; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Influenza A virus.
                PubMed=6137771;
                                                                                                                                                                                                                                                                                                                                2 VPL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CV 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 CI 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
VP19 HHV1K
VP19 HHV1K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q67113
Q67113;
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                        067113
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                           Plummer N.W., McBurney M.W., Meisler M.H.;
"Alternative splicing of the sodium channel SCN8A predicts a truncated two-domain protein in fetal brain and non-neuronal cells.";
J. Biol. Chem. 272:24008-24015(1997).
EMBL; U97673; AAB80916.1;
GO; GO:0005216; F:ion channel activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gallus gallus (cnicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Skin secretion, Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C., Bowie J.H., Tyler M.J., Wallace J.C., "Peptides from the skin glands of the Australian buzzing tree frog Litori electrica. Comparison with the skin peptides from Litoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Neobatrachia, Hyloidea, Hylidae,
Pelodryadinae, Litoria.
          SEQUENCE FROM N.A.
MEDLINE=97442476; PubMed=9295353; DOI=10.1074/jbc.272.38.24008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amidation; Amphibian defense peptide; Direct protein sequencing, MOD_RES 6 Methionine amide. SEQUENCE 6 AA; 792 MW; 6683704772C9A000 CRC64;
                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
                                                                                                                                                                                                                      35.7%; Score 15; DB 2; Length 7; 100.0%; Pred. No. 1.6e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Match 31.0%; Score 13; DB 1; Length 6; Local Similarity 66.7%; Pred. No. 1.6e+06; es 2; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                   NON TER 1 1 1
SEQUENCE 7 AA; 730 MW; 75B72EA2C73772A0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Electrin 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUL-2004 (Rel. 44, Created)
05-JUL-2004 (Rel. 44, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                     6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -1- SUBCELLULAR LOCATION: Secreted.
-1- TISSUE SPECIFICITY: Skin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Litoria rubella (Desert tree frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chem. 52:639-645(1999)
                                                                                                                                                                                                                                       Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [1] -
SEQUENCE, AND SYNTHESIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                               1 VPL 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ||:
2 VPI 4
                                                                                                                                                                                                                                                                                        2 VPL 4
                                                                                                                                                   Ionic channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 VPL 4
                                                                                                                                                                                                                                                                                                                                                                           FARP CHICK
AC P0336;
DT C5-UUL-2004
DT 05-UUL-2004
DT 05-UUL-2004
DE FMRFamide-111
OS Gallus gallui
OC Bukaryota; MA
OC Archosouria;
OC Gallus
OX NCBI_TAXID=9
RN [1]
RN [1]
RP
                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
```

.. 0

Gaps

;

RESULT

셤

```
01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 100.
nes 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 100.
nes 2; Conservative
                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                smooth muscle.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                        NCBI TaxID=75988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 VP 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mini-cistron.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 VP
                           TPFY PACDA
P83455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=NHE3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08NHH7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8NHH7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q8NHH7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Spittaels K., Vankerberghen A., Schoofs L., Torrekens S., Grauwels L., van Leuven F., Schoofs L., Torrekens S., Grauwels L., van Leuven F., Consola A., Schoof A., Torrekens S., Grauwels L., van Leuven F., Consola A., Conso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                               Silverstein S., Wagner E.K.;
"Analysis of the herpes simplex virus type 1 promoter controlling the expression of Un.38, a true late gene involved in capsid assembly.";
J. Virol. 65:769-786(1991).
-!- FUNCTION: Component of the basal layer in which the capsids are embedded. Binds DNA.
-!- SIMILARITY: Belongs to the herpesviruses VP19C family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Leptinotarsa decemlineata (Colorado potato beetle).
Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterrygota, Coleoptera, Polyphaga, Cucujiformia,
Chrysomeloidea, Chrysomelidae, Chrysomelinae, Doryphorini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.2%; Score 11; DB 1; Length 7; 100.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26.2%; Score 11; DB 1; Length 6; 100.0%; Pred. No. 1.6e+06; ative 0; Mismatches 0; Indels
                                                          Flanagan W.M., Papavassiliou A.G., Rice M., Hecht L.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Amidation; Direct protein sequencing; Neuropeptide. MOD_RES 7 7 Alanine amide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE 6 AA; 703 MW; 67376451A336F000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 AA; 705 MW; 6DD73768745B5DB0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Myotropic neuropeptide 1 (Led-MNP-I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Prea. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Capsid assembly, Coat protein, DNA-binding.
NON_TER 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                           MEDLINE=91101287; PubMed=1846198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M57646; AAA45830.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE, AND SYNTHESIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=7539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leptinotarsa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 PL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 PL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oviduct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LEPDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P42984:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MNP1_LEPDE
D MNP1_LEPDE
DT 01-NOV-
DT 01-NOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Amidation; Amphibian defense peptide; Direct protein sequencing; Hydroxylation.
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE, MASS SPECTROMETRY, HYDROXYLATION OF PRO-3, AND AMIDATION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBCELLUTAR LOCATION: Secreted.
-!- TISSUE SPECIFICITY: Skin.
-!- MASS SPECTROMETRY: MW=809.2; METHOD=MALDI; RANGE=1-7; NOTE=Ref.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (SEP-2002) to Swiss-Prot.
-!- FUNCTION: Myoactive. Has selective relaxing activity on vascular
                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Skin secretion;
Chen T.B., Orr D.F., Shaw C.;
"Pachymedusa dacnicolor tryptophyllin-1 (PdT-1): structural
characterization, pharmacological activity and cloning of precursor
                                           28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2004 (Rel. 44, Last annotation update)
5-JUL-2004 (Rel. 46, Last annotation update)
Tryptophyllin-1 (PdT-1)
Pachymedusa dacnicolor (Giant mexican leaf frog).
Pachymedusa dacnicolor (Giant mexican leaf frog).
Amphibia; Batrachia; Annura; Neobatrachia; Hyloidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26.2%; Score 11; DB 2; Length 7; 100.0%; Pred. No. 1.6e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26.2%; Score 11; DB 1; Length 7; 100.0%; Pred. No. 1.6e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Malakooti J., Ramaswamy K.;
Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF282824 AAMS4343. SEQUENCE 7 AA, 842 MW; 74072DC772D406F0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:0005576; C:extracellular; NAS. GO:0045986; P:negative regulation of smooth muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 7 Proline amide.
7 AA; 794 MW; 7772D37DC7776350 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hydroxyproline.
7 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
```

5 AA.

PRT;

```
Acta Biochim. Biophys. Sin. 36:297-302(2004).
                                                                                                                                                                                                                                                                                     and P.aeruginosa.
-!- MASS SPECTROMETRY: MW=510.8; METHOD=MALDI; RANGE=1-5; NOTE=Ref.1.
Antibiotic; Direct protein sequencing.
SEQUENCE 5 AA; 407 MW; 687DC5BEBDB00000 CRC64;
                                                                      25-JAN-2005 (Rel. 46, Created)
25-JAN-2005 (Rel. 46, Last sequence update)
25-JAN-2005 (Rel. 46, Last annotation update)
Antimicrobial peptide OBP3121.
Bisenia feetida (Common brandling worm) (Common dung-worm).
Elwaryota, Matazoa; Annelida; Clitellata; Oligochaeta; Haplotaxida; Lumbricina; Lumbricidae; Elsenia.
                                                                                                                                                                                                          PubMed=15253156;
Liu Y.-Q., Sun Z.-J., Wang C., Li S.-J., Liu Y.-Z.,
"Purification of a novel antibacterial short peptide in earthworm
Eisenia foetida.";
                                                                                                                                                                                             SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
                                                                                                                                                                                                                                                                                                                                                    23.8%; 50.0%;
                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 50.0°,
"Thes 1; Conservative
                                               STANDARD;
                                                                                                                                                                   NCBI_TaxID=6396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=6550;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 VPL 4
                                                                                                                                                                                                                                                                                                                                                                                                          2 SC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AC 2
                                             AP21 EISFO
P84182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARP MYTED
P10420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                    T 12
EISFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
CARP MYTED
                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . .; IEA
                                                                                                                                  Eukaryota, Viridiplantae, Streptophyta; Embryophyta, Tracheophyta; Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, asterids; campanulids; Asterales; Asteraceae; Cichorioideae; Cichorieae; Taraxacum; unclassified Taraxacum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lycopersicon esculentum (Tomato).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
lamiids; Solanales; Solanaceae; Solanum.
                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=97351561; PubMed=9207843; DOI=10.1023/A:1005800511372; Oetiker J.H., Olson D.C., Shiu O.Y., Yang S.F.; "Differential induction of seven 1-aminocyclopropane-1-carboxylate synthase genes by elicitor in suspension cultures of tomato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Lycopersicon esculentum).";
Plant Mol. Biol. 34:275-286(1997).
EMBL; U75692; AAC49682.1; -.
GO; GO:0016847; F:1-aminocyclopropane-1-carboxylate synthase ..
GO; GO:0016829; F:1yase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
                                                                                                                                                                                                                                                                                                                                                   26.2%; Score 11; DB 2; Length 7; 50.0%; Pred. No. 1.6e+06; tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'Match 26.2%; Score 11; DB 2; Length 7; Local Similarity 100.0%; Pred. No. 1.6e+06; les 2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                        Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AY015477, AAK21591.1; --
GO; GO:0009507; C:chloroplast; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-1997 (TrEMBLrel. 03, Created)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-MAY-2003 (TrEMBLrel. 24, Last annotation update)
1-aminocyclopropane-1-carboxylate synthase (EC 4.4.1.14)
                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                              NON TER 1 1 1
SEQÜENCE 7 AA; 675 MW; 687451B5A76DDB70 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 AA; 828 MW; 71B412C7377415D0 CRC64;
                7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 AA.
                                                                                                          Taraxacum (sect. Dioszegia) sp. 4310Hnew
                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                        01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2003 (TrEMBLrel. 22, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                               2; Conservative
                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                  SEQUENCE FROM N.A. TISSUE=Leaf; Mes T.H.M.;
                                                                                                                                                                                         NCBI_TaxID=154248;
                                                                                                                                                                                                                                                                                                                                                                                                                       PSTN 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=4081;
                                                                                                                                                                                                                                                                                                                                                                                                         3 PLTS 6
                                                                                PsbA (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=LE-ACS1B;
                                                                                                                                                                                                                                                                                                   Chloroplast.
                                                                                                                         Chloroplast.
                                                                                               Name=psbA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                               QBMFY6;
               Q8MFY6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P93233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
P93233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lyase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                               Matches
ठ
                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

ö

Gaps

ô

Score 10; DB 1; Length 5; Pred. No. 1.6e+06; 1; Mismatches 0; Indels

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (contraction)
                                            01-MAR-1989 (Rel. 10, Created)
01-MAR-1989 (Rel. 10, Last sequence update)
05-JUJ-2004 (Rel. 44, Last annotation update)
Catch-relaxing peptide (CARP).
Mytilus edulis (Blue mussel).
Bukaryota; Metazoa; Mollusca; Bivalvia; Pteriomorphia; Mytiloida;
Mytiloidea; Mytilus.
                                                                                                                                                                                                                                                                                                                                       MEDLINE=88052022; PubMed=3676797;
Hirata T., Kubota I., Takabatake I., Kawahara A., Shimamoto N.,
Muneoka Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                         "Catch-relaxing peptide isolated from Mytilus pedal ganglia.";
Brain Res. 422:374-376 (1987).
-!- FUNCTION: This peptide exhibits both potentiating (contract
and inhibitory (relaxation) effects on the anterior byseus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 10; DB 1; Length 7; Pred. No. 1.6e+06; 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; A29342; ECMUCR. Midation; Direct protein sequencing; Hormone. MOD RES SEQÜENCE 7 AA, 831 MW; 6734072687669DB0 CRC64;
7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 33.3%;
Matches 1; Conservative ;
STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         retractor muscle.
```

RESULT 14 TY51_LITRU

3 PL

à 셤

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The structure of new peptides from the Australin red tree frog Litoria rubella. The skin peptide profile as a probe for the study of evolutionary trends of amphibians.";

Aust. J. Chem. 49:955-963(1996).

-- FUNCTION: May act as a neuromodulator or neurotransmitter.

-- SUBCELLULAR LOCATION: Secreted.

-- TISSUE SPECIFCITY: Expressed by the skin dorsal glands.

-- TISSUE SPECIFCITY: Mw=965; METHOD=FAB; RANGE=1-7; NOTE=Ref.1.

Amidation; Amphibian defense peptide; Direct protein sequencing; Neuropeptide; Pyrrolidone carboxylic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae; Pelodryadinae; Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vercauteren I., Van Der Schueren E., Van Montagu M., Gheysen G., "Arabidopsis thaliana genes expressed in the early compatible interaction with root-knot nematodes."
Mol. Plant Microbe Interact. 14:288-299 (2001).
                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Skin secretion;
Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
Tyler M.J., Wallace J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 1 Pyrrolidone carboxylic acid.
7 7 Arginine amide.
7 AA; 983 MW; 7401E9D3676046B0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23.8%; Score 10; DB 1; Length 7; 50.0%; Pred. No. 1.6e+06; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AJ286350; CAB71014.2; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein DiDi 10A-2b (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 AA; 719 MW; 6732C7287EB325D0 CRC64;
                                                                                   28-FEB-2003 (Rel. 41, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Tryptophyllin 5.1. Litoria rubella (Desert tree frog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7 AA.
7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arabidopsis thaliana (Mouse-ear cress).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Roots;
MEDLINE=21171025; PubMed=11277426;
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE, AND MASS SPECTROMETRY.
                                                          (Rel. 41, Created)
(Rel. 41, Last seq
STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hypothetical protein.
NON TER 1 1 1 1 NON TER 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vercauteren I.J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 1; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 VP 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Roots;
                                                       28-FEB-2003
TYS1 LITRU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9C5B3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
09C5B3
10 09C5B3
AC 09C5B
DT 01-JU
DT 01-JU
DT 01-JU
DT 01-JU
DT 01-JU
DE Hypot
OX Arab
OX A
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
```

23.8%; Score 10; DB 2; Length 7;

Query Match

```
Best Local Similarity 33.3%; Pred. No. 1.6e+06;
Matches 1; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Qy 5 TSC 7

Db 1 SKC 3

Search completed: April 1, 2005, 11:38:47
Job time: 116 secs
```

THIS PAGE BLANK (USPTO)

```
1, 2005, 11:24:47; Search time 117 Seconds (without alignments) 23.140 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                         121728
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                      2105692 seqs, 386760381 residues
                                                                      - protein search, using sw model
                                                                                                                                                                                                                                                                     Gapop 10.0 , Gapext 0.5
                                                                                                                                                                        US-09-761-636A-11
42
                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                           seq length: 0 seq length: 7
                                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                           Minimum DB Maximum DB
                                                                      OM protein
                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                         Run on:
```

geneseqp1980s:* geneseqp1990s:* geneseqp2000s:* geneseqp2003as:* geneseqp2003bs:* geneseqp2004s:* A_Geneseq_16Dec04:* geneseqp2001s:* geneseqp2002s:* Database

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Kidney ho
Kidney ho
Phage pep
Kidney re
Kidney re
Kidney ce
Kidney ce
Phage pep IGF-1 ana Human sec IL-2 deri Cadherin-B lymphoc B Lymphoc PB-cadher Cadherin-Cadherin-IL-2 deri Cadherin-Aau04530 VEGF base Cadherin-PB-cadher Description Adul0724
AbuS933
Adus9393
Adus9393
Adc3369
Adc3369
Adu0531
Abj0050
Abj0050
Abj0050
Abg3862
Agy62764
Agy62277
Agy6227 Aay85404 Aay61930 Aay62758 Aay64322 Aay61506 Aab12007 Aae11813 SUMMARIES AAU10724 ABU59533 ADC33700 ADN03565 AAU04531 ABJ00550 ABG33862 AAY61489 AAY62764 AAY62007 AAY85374 AAY85374 AAR54450 AAR51449 AAR54644 AAY61930 AAY62758 AAY64322 AAY61506 AAB12007 AAE11813 ADC33699 DB Length Query 100.0 Score Result Š.

Aay62489 Cadherin-	Aay63236 Protocadh	Abb47076 Desmocoll	Aar15772 Farnesyl-	Aar49769 Farnesylt	Aar77833 Farnesyl	Aaw04459 Farnesyl	Aaw67428 HCV pepti	Abj37236 Rhodopsin	Aar36871 Insulin-1	Aar43615 Peptide d	Aaw67430 HCV pepti	Aay64307 Cadherin-	Aay64292 Cadherin-	Aay62135 Cadherin-	Aay63266 Protocadh	Abb46174 Desmoglei	Abj04536 Molt-4 le	Adp06887 Cell adhe	Aaw60386 Tumour ho
3 AAY62489	3 AAY63236	5 ABB47076	2 AAR15772	2 AAR49769	2 AAR77833	2 AAW04459	2 AAW67428	6 ABJ37236	2 AAR36871	2 AAR43615	2 AAW67430	3 AAY64307	3 AAY64292	3 AAY62135	3 AAY63266	5 ABB46174	5 ABJ04536	8 ADP06887	2 AAW60386
7	7	7	4	4	4	4	ഗ	9	7	7	7	7	7	7	7	7	7	7	7
54.8	54.8	54.8	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	20.0
23	23	23	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21
26	27	28	29	30	31	32	33	34	.35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. AAU04530 standard; peptide; 7 AA. VEGF based monocyclic peptide 8. (first entry) 26-SEP-2001 Synthetic RESULT 1 AAU04530

 . 7
 /note= "This bond cyclises the peptide" Location/Qualifiers Disulfide-bond

WO200152875-A1 26-JUL-2001

(LUDW-) LUDWIG INST CANCER RES 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. 18-JAN-2001; 2001WO-US001533

Cendron A; Stacker S, Hughes RA, WPI; 2001-442248/47. Achen MG,

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

Cadherin-

```
peptication are used to interfere with angiogenesis,

to cyclisation are used to interfere with angiogenesis,

neovascularisation or lymphangiogenesis in a mammal with a condition

characterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy,

the condition is diabetic retinopathy, psoriasis, arthropathy,

the condition is diabetic retinopathy, psoriasis, head, head or cold

crebrovascular accident, post-angioplasty restenosis, head, heat or cold

crebrovascular accident, post-angioplasty restenosis, head, heat or cold

creatman substance-induced neovascularisation of the liver, excessive

chormone-related angiogenic dysfunction, diabetes induced neovascular

sequelae, hypertension induced neovascular sequelae, or chronic liver

crection. The peptides are also used to modulate vascular permeability

cin a mammal (the mammal has a condition characterised by fluid

accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura,

cor brain. The peptides are used to image blood vessels and lymphatic

vasculature. The monomeric and bicyclic peptides are used to interfere

cor brain. The peptides are used to image blood vessels and lymphatic

vasculature. The monomeric and bicyclic peptides are used to interfere

created in combination with an anti-inflammatory agent, to treat a

chronic inflammation, especially rheumatoid arthritis, psoriasis and
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     synthetic peptide is a claimed example of a kidney-homing peptide was identified using a novel method for obtaining molecules that to a selected organ or tissue. This in vivo panning method typically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Obtaining compound that homes to selected organ or tissue - by in vivo panning method, specifically to identify brain, kidney, angiogenic vasculature or tumour tissue homing peptide(s).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kidney homing peptide; in vivo panning; screening; phage display;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 42; DB 4; I
100.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LJOL-) LA JOLLA CANCER RES FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW13421 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 16; Page 68; 75pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96WO-US014600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95US-00526708
95US-00526710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pasqualini R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Query Match
Best Local Similarity 100.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JAN-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kidney homing peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                  diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-202359/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |||||||
CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          drug delivery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ruoslahti E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-SEP-1995;
11-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9710507-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAR-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW13421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 2
õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
involves administering a phage display library to a subject, and identifying expressed peptides which home to the desired organ or tissue, e.g. brain, kidney, angiogenic vascular tissue or tumour tissue. The isolated peptides (see AAW13412-52, AAW11181-86) can be used to target e.g. drugs, toxins or labels to the selected organ/tissue (claimed) or to identify and/or isolate target molecules (claimed). The peptides can be directly identified in vivo, as compared to prior art in vitro screening specificity in vivo
                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kidney; homing peptide; organ targeting; tissue targeting; mouse; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is a mouse kidney homing peptide. This sequence was identified by using in vivo panning to screen a library of potential organ homing molecules. The present sequence can be used to direct a molety to a kidney tissue, by linking the moiety to the present sequence. Examples of potential moieties are drugs, toxins or a detectable label
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptides by in vivo peptides linked to
                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .7
/note= "Can optionally form a cyclic peptide"
                                                                                                                                                                            Score 31; DB 2; Length 7;
Pred. No. 1.8e+06;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 31; DB 3; Length 7; Pred. No. 1.8e+06; 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Identifying and recovering organ homing molecules or panning comprises administering a library of diverse tag which facilitates recovery of these peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                           AAB12007 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 2; Col 18; 20pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-00862855.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95US-00526710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-00813273.
                                                                                                                                                                              73.8%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ruoslahti E;
                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                               Kidney homing peptide # 1.
                                                                                                                                                                                                           4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BURN-) BURNHAM INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-410850/35.
                                                                                                                                                                                                                                      7
                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                      1 CVPLTSC
                                                                                                                                                                                                                                                                  CLPVASC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disulfide-bond
                                                                                                                                                 Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pasqualini R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                    17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US6068829-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-MAY-2000
                                                                                                                                                                            Query Match
Best Local S
Matches 4
                                                                                                                                                                                                                                                                                                                                                                       AAB12007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ds snw
                                                                                                                                                                                                                                                                                                                RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                                                                                                                                                                                                                                                               AAB12007
    888888888888888
                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                g
```

1 CVPLTSC 7

ò

that This

```
Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                          Ruoslahti E,
                                                                                                                                                                                                                                                                       11-SEP-1995;
10-MAR-1997;
                                                                                                                                                       US6306365-B1
                                                                                                                                                                                                                                  08-JAN-1999;
                                                                                                                                                                                                                                                                                                               23-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-APR-2003
                                                                                                                                                                                              23-OCT-2001
                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nvention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABU59533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABU59533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXEXEXEXE
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to an enriched library fraction containing molecules that selectively home to a selected organ or tissue such as grain, kidney or tumour recovered by in vivo panning. The invention contains an extend of invivo panning for identifying a molecule that homes to a specific organ. The molecules, e.g., peptidies, peptidomimetics, proteins and fragments of proteins contained in an enriched library fraction may be administered to a subject as part of a pharmaceutical composition to freat disease or in diagnostic methods. The present sequence is a peptide standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Enriched library fraction comprising molecules recovered by in vivo panning that selectively home to a selected organ or tissue useful for treating disease or in diagnostic methods.
                                                                                                                                                                                                                                                                                         Enriched library fraction; brain; kidney; tumour; panning; diagnostic; molecular medicine; drug delivery; peptidomimetic; pharmaceutical.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.8%; Score 31; DB 4; I 57.1%; Pred. No. 1.8e+06; ive 2; Mismatches 1;
                                                                                                                                                                                                                                                       Phage peptide #21 targetted to kidney.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU10724 standard; peptide; 7 AA.
                                                                                                                 AAE11813 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 2; Col 18; 21pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-00226985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95US-00526710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-00813273.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ď
                                                                                                                                                                                                                                                                                                                                                  unidentified bacteriophage
                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pasqualini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                              (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BURN-) BURNHAM INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-610691/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |:|: ||
1 CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ruoslahti E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAR-1997;
23-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                      Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                            US6296832-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-SEP-1995;
                                                                                                                                                                                          11-SEP-2003
18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-OCT-2001.
                                                                                                                                                     AAE11813;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU10724;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
AAU10724
ID AAU1
XX
AC AAU1
XX
DT 12-M
                                                                                               AAE11813
                                                                          RESULT
                  엄
                                                                                                                                   $\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac{1}{2}$\frac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to a method of recovering molecules that home to a selected organ or tissue. The method comprises administering to the subject the library of diverse molecules, collecting a sample of the selected organ or tissue (e.g. brain or kidney), and recovering from the sample several molecules that home to the selected organ or tissue. The method is useful for identifying molecules, particularly useful for screening large number of molecules (e.g. peptides), that home to a specific organ. The identified molecule is useful for e.g. raising an antibody specific for a target molecule, targeting a desired moiety (e.g. drug, toxin or detectable label) to the selected organ. Specifically, the method is useful for identifying the presence of cancer in a subject by linking an appropriate moiety to a tumour homing molecules that method provides a direct means for identifying molecules that specifically home to a selected organ and, therefore provides a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              significant advantage over previous methods, which require that a molecule identified using an in vitro screening method subsequently be examined to determine if it maintains its specificity in vivo. AAU10724-AAU10738 represent kidney homing peptides described in the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Recovering molecules that home to an organ or tissue, useful for identifying molecules that home to a specific organ or tissue, e.g. identifying a tumor homing molecule to identify the presence of cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Targeting ligand; bioactive agent; polymer matrix; cancer; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                            Organ targeting; tissue targeting; cancer; tumour homing molecule; delivery of target molecule; kidney homing peptide.
Kidney homing peptide #1 useful for delivery of target molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 31; DB 5; Length 7; Pred. No. 1.8e+06; 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kidney receptor targeting peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 2; Col 18; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU59533 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        by in vivo panning of a library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-00526710.
97US-00813273.
97US-00862855.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.8%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-00227906.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pasqualini R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BURN-) BURNHAM INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-040196/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CVPLTSC
```

```
(UYMA-) UNIV MASSACHUSETTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Conservative
                                                                                                                                                          WPI; 2003-722332/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |:|: ||
CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003076596-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-SEP-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                               Green MR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC33699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADC33699
ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a composition comprising a bioactive agent homogeneously dispersed in a targeted matrix (polymer and targeting ligand, Also included are a targeted matrix for use as a delivery vehicle comprising a polymer associated with a targeting ligand, enhancing the bioavailability of an agent comprising administration of the composition. The method is useful for targeted delivery of a drug, especially in cancer therapy. The targeting ligand may be a peptide. Examples of targeting peptides are disclosed including cathepsin-D spetides targeting receptors in the brain and kidney, peptides targeting the RGD (Arg-Gly-Asp)-motif in, e.g., antibodies, peptides targeting the angiogenic endothelium of solid tumours, tissue specific peptides (e.g. of lung, skin, pancreas, intestine, uterus, adrenal gland and retina), and cathonic cancer targeting peptides. The present sequence is a peptide targeting ligand disclosed in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
cathepsin-D substrate; peptides; neuroreceptor; adrenal receptor; fibronectin; vitronectin; integrin; RGD motif; angiogenic endothelium; tumour; cationic cancer-targeting peptide.
                                                                                                                                                                                                                                                                                                                                              Targeted delivery system comprising a bioactive agent homogeneously dispersed in a targeted matrix is especially useful in cancer therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chimeric retrovirus envelope protein; ecotropic envelope protein; cytostatic; gene therapy; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.8%; Score 31; DB 6; Length 7; 57.1%; Pred. No. 1.8e+06; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                       Ramaswami V, Romanowski MJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kidney cell targeted peptide SEQ ID NO:4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC33700 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                       Claim 25; Page 38; 46pp; English.
                                                                                                                                                                       05-JAN-2000; 2000US-00478124.
                                                                                                                                           25-JUL-2001; 2001US-00912609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                       Unger EC, Matsunaga TO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                 (UNGE/) UNGER E C.
(MATS/) MATSUNAGA T O.
(RAMA/) RAMASWAMI V.
(ROWA/) ROMANOWSKI M J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:|: ||
CLPVASC 7
                                                                                   US2002041898-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003076596-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-DEC-2003
                                                                                                                11-APR-2002.
                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC33700;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
```

à 셤

```
The present invention describes a chimeric retrovirus envelope protein

(1) comprising an ecotropic envelope protein and a heterologous short
peptide ligand inserted within the ecotropic envelope protein. Also
described: (1) a nucleic acid molecule comprising a sequence encoding the
recombinant chimeric envelope protein; (2) a vector comprising a nucleic
acid sequence encoding the chimeric envelope protein; (3) a recombinant
retroviral particle comprising a chimeric envelope protein comprising a
heterologous short peptide ligand; (3) altering retroviral tropism; (4)
dentifying a nucleic acid sequence encoding the chimeric envelope
protein that alters viral tropism; (5) delivering a nucleic acid sequence
to a cell; and (6) treating cancer. (1) has cytostatic activity and can
be used in gene therapy. The chimeric retrovirus envelope protein is
useful for treating cancer, which comprises providing a cancer cell; e.g.
human cancer cell and infecting the cancer cell with a virus, e.g.
retrovirus comprising the chimeric envelope protein comprising a
retrovirus comprising the chimeric envelope protein comprising a
certovirus comprising the chimeric envelope protein comprising a
cocding thymidine kinase. The present expensents a kidney cell
certovirus comprising the cancer cell with a virus, e.g.
crargeted peptide ligand and a therapoutically useful
certovirus comprising the cancer cell with the exempleication of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New chimeric retrovirus envelope protein comprising an ecotropic envelope protein and a heterologous short peptide ligand inserted within the ecotropic envelope protein useful for treating cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chimeric retrovirus envelope protein; ecotropic envelope protein; cytostatic; gene therapy; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73.8%; Score 31; DB 7; Length 7; 57.1%; Pred. No. 1.8e+06; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kidney cell targeted peptide SEQ ID NO:3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; SEQ ID NO 4; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADC33699 standard; peptide; 7 AA.
07-MAR-2003; 2003WO-US007323.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAR-2002; 2002US-0362655P.
                                                                                                         08-MAR-2002; 2002US-0362655P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-MAR-2003; 2003WO-US007323.
```

ö

```
(LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                   73.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0176293P.
2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                              4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Key
Disulfide-bond
                                                                                                                                                                                                                                                                                                                                             Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JAN-2000;
16-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04531;
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU04531
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present interior an execution and a heterologous short peptide ligand inserted within the ecotropic envelope protein. Also described: (1) a nucleic acid molecule comprising a sequence encoding the recombinant chimeric envelope protein; (2) a vector comprising a nucleic acid sequence encoding the chimeric envelope protein; (3) a recombinant cerrorisal particle comprising a chimeric envelope protein; (3) a recombinant retroviral particle comprising a chimeric envelope protein comprising a heterologous short peptide ligand; (3) altering retroviral tropism; (4) identifying a nucleic acid sequence encoding the chimeric envelope protein that alters viral tropism; (5) delivering a nucleic acid sequence con a cell; and (6) treating cancer. (I) has cytostatic acidity and can be used in gene therapy. The chimeric retrovirus envelope protein is cuseful for treating cancer, which comprises providing a cancer cell, e.g. human cancer cell and infecting the cancer cell with a virus, e.g. custorius comprising a cherrologous short peptide ligand and a therapeutically useful gene, e.g. encoding thymidine kinase. The present sequence represents a kidney cell carget and peptide, which is given in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                          New chimeric retrovirus envelope protein comprising an ecotropic envelope protein and a heterologous short peptide ligand inserted within the ecotropic envelope protein useful for treating cancer.
                                                                                                                                                                                                                                                     present invention describes a chimeric retrovirus envelope protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Phage peptide display library derived kidney homing peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   In vivo panning; screening; phage peptide display library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 31; DB 7; I
Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Mismatches
                                                                                                                                                                                                            Disclosure; SEQ ID NO 3; 42pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADN03565 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-00526710.
97US-00813273.
97US-00862855.
99US-00227906.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73.8%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-AUG-2001; 2001US-00922227.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pasqualini R;
(UYMA-) UNIV MASSACHUSETTS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unidentified bacteriophage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
                                           Green MR, Gollan TJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RUOSLAHTI E.
PASQUALINI R.
                                                                                   WPI; 2003-722332/68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |:|: ||
CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2004071689-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ruoslahti E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-APR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAR-1997;
23-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADN03565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (RUOS/)
(PASQ/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      fatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADN03565

110 ADN0

AC ADN0

XX ADN0

DE Phag

XX M In 1

XX M In 2

XX M In 2

PR 11-1

PR 11-1

PR 23-1

PR 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
ö
                                                                                                                                                                                                                                                                 The invention relates to a method for in vivo panning of a library to identify molecules that specifically home to a selected organ. The method is useful for screening large numbers of molecules, e.g. peptides to identify those that can home to selected organs. It can facilitate recovery or identification of the molecule. The present sequence is a kidney homing peptide derived form phage peptide display library. This sequence is used to illustrate the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a
Obtaining molecule that homes to selected organ involves administering library of diverse molecules to subject, collecting the sample of the selected organ, and identifying the molecule.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neovascularisation, lymphangiogenesis, psoriasis, tumour;
diabetes induced neovascular sequelae, rheumatoid arthritis;
diabetic retinopathy, chronic inflammation, cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 31; DB 8; Length 7;
Pred. No. 1.8e+06;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Mismatches
                                                                                                                                                                                   Example 2; SEQ ID NO 21; 21pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04531 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 9.
```

```
method of producing a monomeric monocyclic peptide by a measuring beta-
beta carbon separation distances on opposite antiparallel strands of a
cyclising the peptide by oxidiaing the cysteine residues. The monocyclic
cyclising the peptide by oxidiaing the cysteine residues. The monocyclic
cyclising the peptide with at least one amino acid deleted prior
cyclisation are used to interfere with angiogenesis.

to cyclisation are used to interfere with angiogenesis.

covascularisation or lymphangiogenesis in a mammal with a condition
condition is diabetic retinopathy, poriasis, arthropathy,
chemangioma, vascularised malignant or benign tumour, post-recovery
cerebrovascular accident, post-angioplasty restenosis, head, heat or cold
crauma, substance-induced neovascularisation of the liver, excessive
correction. The peptides are also used to modulate vascular permeability
in a mammal (the mammal has a condition characterised by fluid
accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura,
or brain. The peptides are used to image blood vessels and lymphatic
vasculature. The monomeric and bicyclic peptides are used to interfere
cor brain. The peptides are used to image blood vessels and lymphatic
vasculature. The monomeric and bicyclic peptides are used to interfere
cor brain. The peptides are used to image blood vessels and lymphatic
vasculature. The monomeric and bicyclic peptides are used to interfere
cor brain intended in combination with an anti-inflammatory agent, to treat a
chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neuroprofective; cytostatic; immunostimulant; antitumour; anti-HIV; antial-Inrgic; thyromimetic; antial-Inrgic; thyromimetic; antial-Inrgic; thyromimetic; ophthalmological; antial-Inmanatory; cardiant; ophthalmological; uropathic; antidiabetic; antithyroid; antidepressant; hepatotropic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B lymphocyte stimulator protein binding protein; BLyS; immune disease; allergy; proliferative disease; infectious disease; arteriosclerosis; inflammatory disorder; hypergammaglobulinaemia; blood clotting;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ischaemia, graft-versus-host disease, neurodegenerative disease,
immunosuppressive, nephrotropic, antirheumatic, antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69.0%; Score 29; DB 4; Length 6; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B lymphocyte stimulator protein binding peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       label= Phe, Trp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABJ00550 standard; peptide; 7 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /label= Pro, Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-AUG-2001; 2001WO-US025850.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-AUG-2000; 2000US-0226700P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CVPLT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200216411-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABJ00550;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
amelioration of adisease or disorder associated with aberrant B
lymphocyte stimulator (BLyS), BLyS receptor expression or activity; cells
of haematopoietic origin; or proliferative disease; and reducing,
inhibiting or stimulating immunoglobulin production, B cell proliferation
and graft rejection involving administration of BLyS binding polypeptides.
The BLyS binding polypeptides are used in the treatment, prevention or
amelioration of diseases such as immune system diseases, proliferative
diseases, diseases of cells of hematopoietic origin, graft rejection,
hypergammaglobulinaemia, blood clotting disorders, inflammatory disorders,
hypergammaglobulinaemia, blood clotting disorders, ischaemia, and
neurodegenerative diseases. The present sequence is a B lymphocyte
stimulator protein binding peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B Lymphocyte Stimulator protein; B Lymphocyte Stimulator binding peptide; BLyS; biological fluid; serum; plasma; lymph; blood; urine; spinal fluid; synovial fluid; saliva; mucus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New B-lymphocyte stimulator binding polypeptide useful in detecting or isolating BLyS or BLyS-like polypeptide comprises a specified amino acid
                                                                              The treatment of various diseases e.g. rheumatoid arthritis, comprises administering B Lymphocyte stimulator binding polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a B Lymphocyte Stimulator (BLyS) binding polypeptide. BLyS binding peptides bind BLyS or BLyS-like proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                  present invention relates to the treatment, prevention or
                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 28; DB 5; Length 7; Pred. No. 1.8e+06; 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B Lymphocyte Stimulator (BLyS) binding peptide #436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ladner RC;
               Rosen CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fleming TJ,
               Fleming TL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 132; 269pp; English.
                                                                                                                                 Claim 69; Page 233; 387pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG33862 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-AUG-2001; 2001WO-US025891.
                                                                                                                                                                                                                                                                                                                                                                                                                                    66.7%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-AUG-2000; 2000US-0226489P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Conservative
               Potter DM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Potter MD,
                                               WPI; 2002-499775/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-351647/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CXPXTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (DYAX-) DYAX CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200216412-A2.
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beltzer JP,
               Beltzer JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG33862;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABG33862
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New cadherin modulating agents, used for modulating nonclassical cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-7; cadherin-12; cadherin-14; cadherin-15; T-cadherin; PB-cadherin; cadherin-15; T-cadherin; pB-cadherin; cadherin related neuronal receptor; LI-cadherin; protocadherin; desmoglein; desmocollin; calcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes cadherin modulating agents (MA) comprising peptides which comprise a nonclassical cadherin cell adhesion recognition (CAR) sequence. The MAS can be used for modulating nonclassical cadherin-mediated functions. They can be used for e.g.
reversibly or irreversibly. The binding peptides are used in detection, isolation and/or purification of BLyS in a solution such as water or a buffer solution, as wall as any fluid and/or cell obtained from an individual biological fluid, body tissue, body cell, cell line, tissue culture or other source containing BLyS or BLyS-like polypeptides. The biological fluids sera, plasma, lymph, blood, blood fraction, urine, synovial fluid, spinal fluid, asaliva and muccus. Sequences ABG33465-33415, ABG33463-33848-33848-33848-33850 and ABG33852-13862 represent BLyS binding peptides of the invention
                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cadherin-7 cell adhesion recognition cyclic peptide SEQ ID NO:1375.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                           6
                                                                                                                                                                                                        Score 28; DB 5; Length 7; Pred. No. 1.8e+06; 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers 1. .7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 36; Page 172; 252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                AAY61489 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ADHE-) ADHEREX TECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Byers S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-00073040.
98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                       66.7%;
ilarity 57.1%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neurological disease; cyclic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-CA000363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gour BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-038791/03
                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                            CVPLTSC
                                                                                                                                                                                                                                                                                                            1 CXPXTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disulfide-bond
                                                                                                                                                                         Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAY-1998;
06-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9957149-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                               AAY61489;
                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                                                                                                                                                                                                                                                            888888888888888
                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                        8
```

```
mammal, enhancing delivery of a drug through the skin of a mammal, enhancing delivery of a drug through the skin of a mammal, enhancing delivery of a drug through the skin of a mammal, enhancing delivery of a drug to a tumour in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting cangiogenesis in a mammal, inhibiting apoptosis in a nonclassical cadhering approach of the correct of the contral nervous system, treating a demyelinating neurological disease, blood vessel regression in a mammal, enhancing delivery to the contral nervous system, treating a demyelinating neurological disease, contral nervous system, treating a demyelinating neurological disease, contral nervous system, treating a demyelinating synaptic stability in a mammal, or preventing pregnancy in a mammal. They can also be used for correducing sor directing neurite outgrowth, facilitating wound healing or reducing sor directing neurite outgrowth, facilitating wound healing or reducing sor a tissue, or enhancing adhesion of foreign tissue in a mammal. They can also be used for treating e.g. psortasis, arthritis, age related macular degeneration, multiple sclerosis and diabetes. The products can also be used for treating e.g. psortasis, arthritis, age related macular degeneration, multiple sclerosis and diabetes. The products can also be used for detection and diagnosis and in bioreactors. ANY64572 to AAY64512 represent specifically claimed peptides, and can also be used for detection and diagnosis and in bioreactors. AAY6652 to AAY64512 represent specifically claimed peptides, and can also be used for treating e.g. psortasis, arthritis, age related macular degeneration, multiple sclerosis and diabetes. The products can also be used for treating e.g. psortasis, and in bioreactors. AAY6652 to AAY64513 and AAX33188 to AAX33188 to AAY64513 and described in a decomplete of the contraction of the correction of the contraction of the contraction of the contraction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin, cadherin-15; cadherin-6; cadherin-7; cadherin-12; cadherin-15; T-cadherin; PB-cadherin; cadherin-16; adherin-15; T-cadherin; PB-cadherin; protocadherin; cadherin; cadherin; calcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PB-cadherin cell adhesion recognition cyclic peptide SEQ ID NO:4047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61.9%; Score 26; DB 3; Length 7; 57.1%; Pred. No. 1.8e+06; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                         the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY62764 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ADHE-) ADHEREX TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Byers S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-CA000363.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-00073040.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gour BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-038791/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CEPKTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9957149-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-NOV-11999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY62764
          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
```

```
AAY62007 standard; peptide; 7 AA.
                                                                                                                                                                                                           99WO-CA000363.
                                                                                                                                                                                                                 98US-00073040.
                                                                                                                                        02-MAR-2000 (first entry)
                                                                                                              CDPKTGC 7
                                                                                                        CVPLTSC
                                                                                                                                                                                          Disulfide-bond
                                                                                       Sequence 7 AA;
                                                                                                                                                                                                           05-MAY-1999;
                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                               WO9957149-A2
                                                                                                                                                                                                                 05-MAY-1998;
                                                                                                                                                                                                      11-NOV-1999
                                                                                                                                                                              Synthetic
                                                                                                                                   AAY62007;
                                                                                                                       RESULT 15
                                                                                                                          ઠે
                                                                                                              셤
```

```
The present invention describes cadherin modulating agents (MA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

cecognition (CAR) sequence. The MAs can be used for modulating of

nonclassical cadherin-mediated functions. They can be used for e.g.

inhibiting adhesion of nonclassical-cadherin expressing cells in a

mammal, enhancing delivery of a drug to a tumour in a mammal, treating cancer in

a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting

cangiogenesis in a mammal, inducing apoptosis in a nonclassical cadherin-

expressing cell, preventing or treating obesity in a mammal, stimulating

blood vessel regression in a mammal, enhancing drug delivery to the

contral nervous system, treating a demyelinating neurological disease,

increasing vasopermeability in a mammal, enhancing synaptic stability in

a mammal, or preventing pregnancy in a mammal. They can also be used for

cor reducing scar tissue, or enhancing adhesion of foreign tissue in a

mammal. They can also be used for treating e.g. psoriasis, arthritis, age

crelated macular degeneration, multiple sclerosis and diabetes. The

products can also be used for detection and diagnosis and in bioreactors.

ANY6652 to AAX64572 represent specifically claimed peptides, and

ANY6652 to AAX64572 represent specifically claimed peptides, and

ANY66531 to AAX653186 represent sequences used in
New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the exemplification of the present invention
                                                                                                                                                                                                                                                           Claim 72; Page 193; 252pp; English
```

Gaps . Score 25; DB 3; Lengtn ',
Pred. No. 1.8e+06; 0; Mismatches 59.5%; 57.1%; Query Match
Best Local Similarity 5/...
4; Conservative

ö

Cadherin-12 cell adhesion recognition cyclic peptide SEQ ID NO:1799.

Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; be cadherin; cadherin-5; cadherin-6; cadherin-1; cadherin-12; cadherin-14; cadherin-15; T-cadherin; PB-cadherin; cadherin-16; T-cadherin; DB-cadherin; protocadherin; cadherin; cadherin related neuronal receptor; LI-cadherin; protocadherin; desmocollin; desmocollin; calcium binding; cancer; tumour; obesity; rheumatoid arthritis; multiple sclerosis; diabetes; metastasis; neurological disease; cyclic.

Location/Qualifiers

```
The present invention describes cadherin modulating agents (MA)

comprising peptides which comprise a nonclassical cadherin cell adhesion

crecognition (CAR) sequence. The MAs can be used for modulating

crecognition (CAR) sequence. The MAs can be used for edge of the conclassical cadherin-mediated functions. They can be used for e.g.

inhibiting adhesion of nonclassical-cadherin expressing cells in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting stimulating central nervous system, treating a demyelinating neurological disease,

conclassing vasopermeability in a mammal. Heny can also be used for conclassical cadherin-expressing cells, inhibiting synaptic stability in a mammal. They can also be used for treating adhesion of foreign tissue, or enhancing adhesion of foreign tissue in a mammal. They can also be used for treating e.g. psoriasis, arthritis, age related macular degeneration, multiple sclerosis and diabetes. The products can also be used for detection and diapense and in bioreactors.

ANY6652 to AXX64572 represent specifically claimed peptides, and can in the conclaimed peptides, and can be conclaimed to the conclaimed peptides and can be conclaimed to the cancer in a mammal. They can also be used for detection and diagnosis and in bioreactors.

ANY6652 to AXX64572 represent specifically claimed peptides, and cancer in the case of the cancer in the case of the case
                                                                                                                                                                                                                                                                                                                        New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 48; Page 180; 252pp; English
                                                                                                                              (ADHE-) ADHEREX TECHNOLOGIES INC
                                                                                                                                                                                                Byers S;
98US-00187859.
99US-00234395.
99US-00264516.
                                                                                                                                                                                                Gour BJ,
                                                                                                                                                                                             Blaschuk OW,
   06-NOV-1998;
20-JAN-1999;
                                                                  08-MAR-1999;
```

Sequence 7 AA;

Gaps . 0 59.5%; Score 25; DB 3; Length 7; llarity 57.1%; Pred. No. 1.8e+06; Conservative 0; Mismatches 3; Indels Local Similarity les 4; Conser Query Match Matches

ö

1 CDPKTGC 7 1 CVPLTSC

à

Search completed: April 1, 2005, 11:36:40 Job time : 118 secs

```
Sequence 1799, Ap Sequence 3971, Ap Sequence 3574, Ap Sequence 3574, Ap Sequence 1392, Ap Sequence 2720, Ap Sequence 2720, Ap Sequence 2720, Ap Sequence 2720, Ap Sequence 252, App Sequence 252, App Sequence 252, App Sequence 2750, Ap Sequence 3606, Ap Sequence 3621, Ap Sequence 3621, Ap Sequence 2750, Ap Sequence 1888, Ap Sequence 1884, App Sequence 1864, App Sequence 103, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 11, Application US/09761636A

Sequence 11, Application US/09761636A

Sequence 11, Application US/09761636A

Sequence 11, Application US/09761636A

SEQUENCE 11, APPLICANT: CALCANTION MARC

APPLICANT: STACKER, Steven

APPLICANT: ENGREN Richard

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VGGP-D/VGGF-C/VGGF PEPTIDOMIMETIC INHIBITOR

FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT APPLICATION NUMBER: US 60/176,293

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR APPLICATION NUMBER: US 60/204,590

PRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-05-16

NUMBER OF SEQ ID NOS: 34

SOFTWARE: PatentIn version 3.0

SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 42; DB 9; Length 7; 100.0%; Pred. No. 1.3e+06; ive 0; Mismatches 0; Indels
   US-10-395-032-1799
US-10-395-032-3971
US-10-395-032-3971
US-10-395-032-3874
US-10-006-869-3574
US-10-006-869-3574
US-10-006-869-1357
US-10-006-869-1392
US-10-006-869-1392
US-10-006-869-1392
US-10-006-869-2155
US-10-035-032-1392
US-10-395-032-1392
US-10-395-032-3637
US-10-395-032-3637
US-10-006-869-3888
US-10-006-869-3606
US-10-006-869-3888
US-10-395-032-3868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-911-838-184
US-09-911-838-186
US-09-765-086-103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
        Query Match
Best Local Similarity 100.
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
CRGANISM: Homo sapiens
US-09-761-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-761-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
US-09-912-609-7
        LENGTH
        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7, Appli
Sequence 21, Appl
Sequence 21, Appl
Sequence 12, Appl
Sequence 12, Appl
Sequence 8, Appli
Sequence 1375, Ap
Sequence 1375, Ap
Sequence 1375, Ap
Sequence 1375, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 11, Appl
Sequence 7, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                            April 1, 2005, 11:38:54; Search time 93 Seconds (without alignments) 24.959 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Published Applications A4:

Published Applications A4:

Published Applications A4:

Published Applications A4:

Pogn2_6/ptodata/2/pubpaa/US60_NEW PUB.pep:*

Pogn2_6/ptodata/2/pubpaa/US66_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US66_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US68_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

Pogn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                58233
                     GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-761-636A-11

US-09-912-609-7

1 US-09-912-227-21

US-10-931-37-21

US-10-838-289-19

US-09-761-636A-12

US-09-932-613-8

US-09-932-613-8

US-09-932-32-8

US-10-006-869-1375

US-10-395-032-1375

US-10-006-869-1375

US-10-006-869-1375

US-10-006-869-1375

US-10-006-869-1375

US-10-006-869-1375

US-10-006-869-1375
                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                              1413372 seqs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Applications AA:*
                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                     OM protein - protein search, using sw model
                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                 US-09-761-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99
111
100
111
144
144
144
144
144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length
                                                                                                                                                                                                               1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published
                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0 Maximum DB seq length: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š.
```

Gaps

```
REFERENCE/DOCKET NUMBER: P-LJ 4859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ) OTHER INFORMATION: synthetic peptide US-10-943-372-21
                  TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 21, Application US/10943372
Publication No. US20050037417A1
GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erki
                                                               (619) 535-8949
                                                             TELEFAX: (619) 535-894
INFORMATION FOR SEQ 1D NO: 21:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                |:|: ||
1 CLPVASC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-10-838-289-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-943-372-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                        APPLICANT: UNGER, EVAN C.
APPLICANT: UNGER, EVAN C.
APPLICANT: UNGER, TERMASAMAI, VARADARAJAN
APPLICANT: RAMASAWAMI, VARADARAJAN
APPLICANT: RAMASAWAMI, VARADARAJAN
APPLICANT: ROMANOWSKI, MAREK J.
ITILE OF INVENTION: NOVEL TARGETED DELIVERY SYSTEMS FOR BIOACTIVE AGENTS
FILE REFERENCE: 5030-0001_24
CURRENT APPLICATION NUMBER: US/09/912,609
CURRENT FILING DATE: 2001-07-25
PRIOR PELING DATE: 2000-10-31
PRIOR PELLING DATE: 2000-10-31
PRIOR FILING DATE: 2000-10-5
NUMBER OF SEQ ID NOS: 131
SEQ ID NO 7
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide
US-09-912-609-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dilication NC. COLOR
GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
Pasqualini, Renata
TITLE OF INVENTION: Method of Identifying Molecules That
Home to a Selected Organ In Vivo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 31; DB 9; Length 7; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER EADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPENTING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/922,227
FILING DATE: 02-Aug-2001
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/526,710
FILING DATE: 11-SEP-1995
APPLICATION NUMBER: US 08/813,273
FILING DATE: 10-MAR-1997
APPLICATION NUMBER: US 08/862,855
FILING DATE: 23-MAX-1997
APPLICATION NUMBER: US 09/227,906
FILING DATE: 08-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 21, Application US/09922227
Publication No. US20040071689A1
  Sequence 7, Application US/09912609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: San Diego
STATE: California
COUNTRY: United States
ZIP: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.8%;
57.1%;
           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |:|: ||
CLPVASC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-922-227-21
                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
```

```
Gaps
                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Paggualini, Renata
TITLE OF INVENTION: Method of Identifying Molecules That
TITLE OF INVENTION: Method of Identifying Molecules That
TITLE OF INVENTION: Home To A Selected Organ In Vivo
FILE REFERENCE: 66821-313
CURRENT FILING DATE: 2004-09-17
CURRENT FILING DATE: 2004-09-17
PRIOR PHILING DATE: 2001-08-02
PRIOR PLILING DATE: 1999-01-08
PRIOR PLILING DATE: 1999-01-08
PRIOR PLILING DATE: 1999-01-08
PRIOR PLILING DATE: 1999-01-08
PRIOR FILING DATE: 1999-01-08
PRIOR FILING DATE: 1999-01-08
PRIOR FILING DATE: 1999-01-0
PRIOR PLILOATION NUMBER: 08/82,73
PRIOR PLILOATION NUMBER: 08/526,710
PRIOR PLILING DATE: 1995-09-11
NUMBER OF SEQ ID NOS: 44
SEQ ID NOS: 44
                                                                                                                                                                 73.8%; Score 31; DB 11; Length 7; 57.1%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 7;
                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 19, Application US/10838289
Publication No. US20050058603A1
GENERAL INFORMATION
APPLICANT: Gao, Jinming
APPLICANT: Ai, Hua
TITLE OF INVENTION: DRUG DELIVERY SYSTEM BASED ON POLYMER
TITLE OF INVENTION: NANOSHELLS
FILE REFERENCE: CWRU-P01-040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.8%; Score 31; DB 17;
57.1%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Mismatches
                                                                                                                                                                                                                          2; Mismatches
; TOPOLOGY: linear; MOLECULE TYPE: peptide; SEQUENCE DESCRIPTION: SEQ ID NO: 21: US-09-922-227-21
```

. 0

```
APPLICANT: Dyaz Corp.
APPLICANT: Beltzer, James P.
APPLICANT: Beltzer, James P.
APPLICANT: Beltzer, M. Daniel
APPLICANT: Fleming, Tony J.
APPLICANT: Ladner, Robert Charles
TITLE OF INVENTION: BINDING POLYEPTIDES FOR B LYMPHOCYTE STIMULATOR PROTEIN (BLyS)
FILE REPRENEUR: Dyx-018:1 DYX-018:1 US
CURRENT APPLICATION NUMBER: US/09/932,322
CURRENT FILING DATE: 2001-08-17
NUMBER OF SEQ ID NOS: 458
SOFTWARR: Patentin version 3:1
SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1375, Application US/10006869
Publication No. US20030082166A1
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara APPLICANT: CONFOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
OTHER INFORMATION: BLyS binding polypeptide
NAME/KEY: MISC_FEATURE
LOCATION: (2)...(2)
OTHER INFORMATION: X2 is Phe, Trp, or Tyr (preferably Tyr);
NAME/KEY: MESTERIURE
LOCATION: (4)...(4)
OTHER INFORMATION: X4 is Pro or Tyr (preferably Pro);
                                                                                             TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
ONTHER INFORMATION: BLyS binding polypeptide
NAME/KEY: MISC_FEATURE
LOCATION: (2)...(2)
OTHER INFORMATION: X2 is Phe, Trp, or Tyr (preferably Tyr);
NAME/KEY: MISC_FEATURE
LOCATION: (4)...(4)
OTHER INFORMATION: X4 is Pro or Tyr (preferably Pro);
                                                                                                                                                                                                                                                                                                                                                                                Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 7;
                                                                                                                                                                                                                                                                                                                                                                              66.7%; Score 28; DB 10; Length 7; 57.1%; Pred. No. 1.3e+06; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 66.7%; Score 28; DB 10; Best Local Similarity 57.1%; Pred. No. 1.3e+06; Matches 4; Conservative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 8, Application US/09932322; Publication No. US20030194743A1; GENERAL INFORMATION:
  NUMBER OF SEQ ID NOS: 458
SOFTWARE: PatentIn version 3.1
SEQ ID NO 8
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                Query Match 66.7
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CXPXTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CXPXTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
US-10-006-869-1375
                                                                                                                                                                                                                                                                                                                                  US-09-932-613-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-932-322-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-932-322-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 12, Application US/09761636A
| Patent No. US20020065218A1
| GENERAL INFORMATION:
| APPLICANT: ACHEN, Marc
| APPLICANT: STACKER, Steven
| APPLICANT: TWORKER, Steven
| APPLICANT: TWORES, Richard
| APPLICANT: CHUGHES, Richard
| FILE REFERENCE: 1064/4805 Achen et al
| CURRENT APPLICATION NUMBER: US/09/761,636A
| CURRENT FILING DATE: 2001-01-18
| PRIOR APPLICATION NUMBER: US 60/204,590
| PRIOR PLING DATE: 2000-01-18
| NUMBER OF SEQ ID NOS: 34
| SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 8, Application US/09932613
Publication No. US20030091565A1
GENERAL INFORMATION:
APPLICANT: Human Genome Sciences, Inc.
APPLICANT: Beltzer, James P.
APPLICANT: Potter, M. Daniel
APPLICANT: Rosen, Crang A.
TITLE OF INVENTION: BINDING POLYPEPTIDES AND METHODS BASED THEREON FILLE REFRENCE: Dyx.025.1 US
FILLE REFRENCE: Dyx.025.1 DX.029.1 US
CURRENT APPLICATION UBMER: US/09/932,613
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                         Score 31; DB 17; Length 7; Pred. No. 1.3e+06; 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 9; Le
1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69.0%; Sco...
100.0%; Pred. No. ...
CURRENT APPLICATION NUMBER: US/10/838,289;
CURRENT FILING DATE: 2004-05-03
PRIOR APPLICATION NUMBER: US 60/502,429;
PRIOR FILING DATE: 2003-09-12
PRIOR PILING DATE: 2003-09-12
PRIOR FILING DATE: 2003-05-02
NUMBER OF SEQ ID NOS: 756
SOFTWARE: FastSEQ for Windows Version 4.0;
LENGTH: 7
                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Kidney homing peptide US-10-838-289-19
                                                                                                                                                                                                                                                                                                                                                                                73.8%;
                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 57.11,
The 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Homo sapiens
US-09-761-636A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:|: ||
1 CLPVASC 7
                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CVPLT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
US-09-761-636A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-932-613-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 12
                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
```

ઠ 임

ò 엄

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
US-10-395-032-1375
; Sequence 1375, Application US/10395032
; Publication No. US20030229199A1
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
; APPLICANT: Symonds, James Matthew
; APPLICANT: Symonds, James Matthew
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: CAPPERIN-MEDIATED FUNCTIONS
; TILE REFERENCE: 100086.407C9
; CURRENT APPLICATION NUMBER: US/10/395,032
; CURRENT PILING DATE: 2003-03-21
; NUMBER OF SEQ ID NOS: 4052
; SEQ ID NO 1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
US-10-06-869-1799
US-10-066-869-1799
Sequence 1799, Application US/10006869
Publication No. US20030082166A1
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J. James J. Jame
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-7 cell adhesion recognition sequence US-10-006-869-1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-7 cell adhesion recognition sequence US-10-395-032-1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 61.9%; Score 26; DB 14; Length 7; Best Local Similarity 57.1%; Pred. No. 1.3e+06; Matches 4; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 61.9%; Score 26; DB 15; Length 7; Best Local Similarity 57.1%; Pred. No. 1.3e+06; Matches 4; Conservative 0; Mismatches 3; Indels
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS FILE REFERENCE: 100086,407C7
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 100086.407C7
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 ČEPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CEPKTGC 7
                                                                                                                                                                                                                                                                                  SEQ ID NO 1375
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3971, Application US/10006869
| Publication No. US20030082166A1
| GENERAL INFORMATION |
| APPLICANT: Blaschuk, Orest W. |
| APPLICANT: Symonds, James Matthew |
| TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL |
| TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS |
| FILE REFERENCE: 100086, 407C7 |
| CURRENT APPLICATION NUMBER: US/10/006, 869 |
| NUMBER OF SEQ ID NOS: 4052 |
| SOFTWARE: PatentIn Ver. 2.0 |
| SEQ ID NO 3971 |
| LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-10-006-669-4047
i Sequence 4047, Application US/10006869
i Publication No. US20030082166A1
i GENERAL INFORMATION:
i APPLICANT: Blaschuk, Orest W.
i APPLICANT: Symonds, James Matthew
i APPLICANT: Symonds, Camber M.
i TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
i TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
i TITLE OF INVENTION CADHERIN-MEDIATED FUNCTIONS
i FILE REFERENCE: 100086.407C7
i CURRENT FILING DAITE: 2001-12-03
i NUMBER OF SEQ ID NOS: 4052
i SOFTWARE: Patentin Ver. 2.0
i LENGTH: 7
                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Representative cyclic modulating agent based on
OTHER INFORMATION: cadherin-12 cell adhesion recognition sequence
US-10-006-869-1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Representative cyclic modulating agent based on porter InFORMATION: cadherin-14 cell adhesion recognition sequence US-10-006-869-3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Representative cyclic modulating agent based on COTHER INFORMATION: PB-cacherin cell adhesion recognition sequence US-10-006-869-4047
                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                              Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59.5%; Score 25; DB 14; Length 7; 57.1%; Pred. No. 1.3e+06; Live 0; Mismatches 3; Indels
                                                                                                                                                                                           Score 25; DB 14;
Pred. No. 1.3e+06;
0; Mismatches 3.
                                                                                                                                                                                        59.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                            4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 59.5
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 4; Conserva
                                                                                                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                1 CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
US-10-006-869-3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3971, Application US/10395032

Publication No. US20030229199A1

GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Blaschuk, Orest W.

APPLICANT: Symonds, James Matthew

APPLICANT: Gour, Barbara J.

TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL

TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS

FILE REFERENCE: 1000086.407C9

CURRENT PAPLICANTON NUMBER: US/10/395,032

CURRENT FILING DATE: 2003-03-21

NUMBER OF SEQ ID NOS: 4052

SEQ ID NO 3971

LENGTH: 7
                                                                                                                                                                                                                                                                                       Sequence 1799, Application US/10395032
| Sequence 1799, Application US/10395032
| Publication No. US20030229199A1
| GENERAL INFORMATION:
| APPLICANT: Blaschuk, Orest W. | APPLICANT: Symonds, James Matthew | APPLICANT: Symonds, James Matthew | APPLICANT: Symonds, James Matthew | APPLICANT: Gour, Barbara J. | TILLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL | TILLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS | FILE REFERENCE: 100086, 407C9 | CURRENT FILING DATE: 2003-03-21 | NUMBER OF SEQ ID NOS: 4052 | SOFTWARE PAFENTIN Ver. 2.0 | SEQ ID NO 1799 | LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-12 cell adhesion recognition sequence US-10-395-032-1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Representative cyclic modulating agent based on CTHER INFORMATION: cadherin-14 cell adhesion recognition sequence US-10-395-032-3971
                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                    59.5%; Score 25; DB 14; Length 7; 57.1%; Pred. No. 1.38+06; Live 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59.5%; Score 25; DB 15; Length 7; 57.1%; Pred. No. 1.3e+06; artive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 59.5%; Score 25; DB 15; Length 7; Best Local Similarity 57.1%; Pred. No. 1.3e+06; Matches 4; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial Sequence
Ouery Match
Best Local Similarity 57.1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 59.5
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTSC 7
                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                     1 CDPKTGC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CDPKTGC 7
                                                                                                                                                                                                                                                RESULT 14
US-10-395-032-1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-10-395-032-3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                         ò
                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
Db 1 CDPKTGC 7
Search completed: April 1, 2005, 11:49:14
Job time : 94 secs
```

(OT92U) XMAJE BDA9 21HT

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
OM protein - protein search, using sw model
```

Run on: April 1, 2005, 11:12:11; Search time 46.5 Seconds (without alignments)
99.112 Million cell updates/sec
Title: US-09-761-636A-10
Perfect score: 50
Sequence: 1 CSVPLTSVC 9

Sequence: I CSVPLISVC 9 Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5 Total number of hits satisfying chosen parameters: 1455

1612378 segs, 512079187 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 9 Post-processing: Minimum Match 0*
Maximum Match 100*
Listing first 45 summaries
Listing first 45 summaries
Uniprot_03:*
2: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Q7auj4 acinetobact		Q9fxl0 lilium long				Q8cg13 mus musculu		homo		_		O7m4r6 homo sapien	Q9tru7 bos taurus			Q7imr4 brassica na	Q9md43 rattus norv		Q9say7 dioscorea t			Q9tkg1 calothamnus	P70804 azotobacter	Q07624 rous sarcom	P80709 carcinus ma	Q71ih2 saccharomyc	Q71ur9 homo sapien	Q7m039 rattus norv	-	Q7m4d5 diadema set
	ID	Q7AUJ4	MGMT_BOVIN	Q9FXL0	042564	Q8JJ20	Q85562	Q8CG13	Q16468	Q9Y4X6	Q8L802	Q8KPX4	Q849P4	Q7M4R6	Q9TRU7	035953	Q70Y88	Q7 IMR4	Q9MD43	Q9TKE5	Q9SAY7	Q56140	Q9TKF2	Q9TKG1	P70804	Q07624	ACT_CARMA	Q7LIH2	Q71UR9	Q7M039	YBFR_AZOVI	Q7M4D5
	DB	~	ч	~	~	~	~	~	~	~	7	~	~	N	~	~	7	~	~	7	7	~	~	N	~	~		~	~	7	-	~
	Length	8	6	0	7	7	80	σ	80	80	80	80	80	9	σ	6	80	æ	80	80	80				7	7	œ	89	80	80	σ	σ
ale (Match	40.0	38.0	36.0	34.0	34.0	34.0	34.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	30.0	30.0	.30.0	30.0	30.0	30.0	30.0	30.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	Score	20	19	18	17	17	17	17	16	16	16	16	16	16	16	16	15	15	15	15	15	15	15	15	14	14	14	14	14	14	14	14
1	No.	1	7	ю	4	S	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31

Q61dp7 rattus norv Q61754 cynops pyrr Q9ps68 gallus gall P84182 eisenia foe P82096 litoria rub Q67113 influenza a Q15896 homo sapien Q15898 homo sapien Q70y57 fuerstia af Q70y57 fuerstia af Q70y57 fuerstia af Q70y84 plectranthu Q7mlu0 oryza sativ Q15999 homo sapien Q61db5 homo sapien Q61db5 homo sapien
06LDP7 061754 061754 061754 AP2L EISFO EIO1 LITRU 067113 015898 070084 070084 070084 071599 06LDB5
0000000000000000
ω
14 28 .0 114 28 .0 113 26 .0
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

### ALIGNMENTS

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-1992 (Rel. 24, Created)
01-DEC-1992 (Rel. 24, Last sequence update)
01-DEC-1992 (Rel. 44, Last annotation update)
05-JUJ-2004 (Rel. 44, Last annotation update)
methylated-DNA--protein-cysteine methyltransferase (EC 2.1.1.63) (6-O-methyltransferase) (MGMT) (0-6-methylguanine-DNA-alkyltransferase) (Fragment).
Name=MGMT;
                                                                                                                                                                                                                                                                 "Translocation of transposition-deficient [Tn(d)PKLH2-like] transposons in the natural environment: mechanistic insights from the study of adjacent DNA sequences."; Microbiology 150:979-992 (2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                               Bacteria, Proteobacteria, Gammaproteobacteria, Pseudomonadales,
Moraxellaceae, Acinetobacter.
NCBI_TaxID=106395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                            Kholodii G., Mindlin S., Gorlenko Z., Petrova M., Hobman J.,
Nikiforov V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                     STRAIN=BW3;
Kholodii G.Y.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ486856; CAD31078.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              40.0%; Score 20; DB 2; Length 8; 80.0%; Pred. No. 1.6e+06; 1ive 0; Mismatches 1; Indels
                                                  05-JUL_2004 (TrEMBLrel. 27, Created)
05-JUL_2004 (TrEMBLrel. 27, Last sequence update)
05-JUL_2004 (TrEMBLrel. 27, Last annotation update)
Transposase (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                        NON TER 1 1 SEQUENCE 8 AA; 911 MW; 2D71B2D6C1A73774 CRC64;
                          À.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ą.
                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=BW3;
PubMed=15073307; DOI=10.1099/mic.0.26844-0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 80.0%,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                          PRELIMINARY;
                                                                                                                      Acinetobacter sp. BW3.
Plasmid pKLH207.
                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 PLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PĽTQV 6
                                                                                                          Name=tnp17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGMT_BOVIN
P29177;
                                                                                                                                                                                                                                                                                                                                                                                                          Plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
MGMT_BOVIN
                          07AUJ4
RESULT 1
              Q7AUJ4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
```

```
SEQUENCE FROM N.A.
MEDLINE=97442476; PubMed=9295353; DOI=10.1074/jbc.272.38.24008;
Plummer N.W., McBurney M.W., Meisler M.H.;
"Alternative splicing of the sodium channel SCNBA predicts a truncated two-domain protein in fetal brain and non-neuronal cells.";
J. Biol. Chem. 272:24008-24015(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                     Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Takifugu.
                        01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Truncated voltage-gated sodium channel alpha subunit (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                           Score 17; DB 2; Length 7; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34.0%; Score 17; DB 2; Length 7; 100.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang Q., Li W., Li H.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF487519; AAL96665.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Extracellular fatty acid binding protein (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-UNV-2003 (TrEMBLrel. 24, Last annotation update)
Truncated env protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                              1 1
7 AA; 730 MW; 75B72EA2C73772A0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 AA; 780 MW; 72CB1AB2D5BEBB70 CRC64;
                                                                                                                                                                                                                                                                                                         100.0%; Pred. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                           34.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                              5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
      01-JAN-1998 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Lac 3; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 VPL--VC 5
                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 VPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CSV 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=EXFABP;
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q85562
Q85562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
Q8JJ20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q85562
ID Q8-
AC Q8
DT 01
DT 01
DT TZ
        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                               -!- SIMILARITY: Belongs to the MGMT family.
InterPro; IPR001497; Methyltransf 1.
PROSITE; PS00374; MGMT; PARTIAL.
Direct protein sequencing; DNA repair; Methyltransferase; Transferase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Lillopsida, Liliales, Liliaceae, Lilium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                 TISSUE=Thymus;
MEDLINE=90174912; PubMed=2308822;
Rydberg B., Hall J., Karran P.;
"Active site amino acid sequence of the bovine O6-methylguanine-DNA
Bos taurus (Bovine).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Alkyl group acceptor (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38.0%; Score 19; DB 1; Length 9; 28.6%; Pred. No. 1.6e+06; tive 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 18; DB 2; Length 9;
Pred. No. 1.6e+06;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Uefuji H., Takase H., Hiratsuka K.;
Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases
EMBL; ABDSO987; BAB17856.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
LIM8 protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE 9 AA; 1021 MW; 6F8BD76685A6C2CB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9 AA; 967 MW; 325171A720476047 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lilium longiflorum (Trumpet lily).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 VPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 IPILIPC
                                               Bovinae; Bos.
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 SVPLT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=4690;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMPVT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=LIM8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               042564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9FXL0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9FXL0
```

RESULT 3

ò

.. ;

Gaps

5

ö

Gaps

. 0

Best Loca Matches

RESULT 4 042564 ID 04256 AC 04256

```
Drechsler M., Schumacher V., Friedrich S., Wildhardt G., Giesler S., Schroth A., Bodem J., Royer-Pokora B.; Genomic structure, alternative transcripts and chromosome location of the human LIM domain binding protein gene LDB1."; Cytogenet. Cell Genet. 87:119-124(1999).

EMBL, AJ243097; CAB44408.1; -.
                                                                                                                                                              MEDLINE-96435920; PubMed-8838806; DOI=10.1006/geno.1996.0137;
James L.A., Ogilvie D.J., Yamakawa K., Nakamura Y., Stirling C.J.,
Anand R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                        "Walking, cloning and mapping with YACs in 3q27. Localisation of ESTs including 3 members of the Cystatin gene family and identification of CpG islands."; Genomics 32:425-430 (1996).

EMBL, X88976; CAA61407.1; -.
01-WAY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
H.sapiens DNA for cosmid cCl3-1134 PCR primer 1 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 32.0%; Score 16; DB 2; Length 8; Best Local Similarity 50.0%; Pred. No. 1.6e+06; Matches 2; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                   Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1999 (TrEMBLrel. 12, Last sequence update) 01-DEC-2001 (TrEMBLrel. 19, Last annotation update) Nuclear LIM interactor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE 8 AA; 767 MW; EE6EBDDEB862D5B6 CRC64;
                                                                                                                                                                                                                                                                                                                                               8 AA; 925 MW; FD5411A7376871E6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                 32.0%; Score 16; DB 2; Le
100.0%; Pred. No. 1.6e+06;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1999 (TrEMBLrel. 12, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=20108806; Pubmed=10640831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 3; Conserv
                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zea mays (Maize)
                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 CACP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pat (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 PLT 6
                                                                                                                                                                                                                                                                                                                             NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=NLI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=Pat;
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q8L802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8L802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9Y4X6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q81802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09Y4X6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                 Donoghue D.J., Hunter T.;
"A generalized method of subcloning DNA fragments by restriction site reconstruction. Application to sequencing the amino-terminal region of the transforming gene of Gazdar murine sarcoma virus.";
Nucleic Acids Res. 10:2549-2564(1982).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                            MEDLINE=83164305; PubMed=6300424;
Donoghue D.J., Hunter T.;
Donoghue D.J., Hunter T.;
"Recombination junctions of variants of Moloney murine sarcom virus:
"Recombination and divergence of a mammalian transforming gene.";
J. Virol. 45:607-617(1983).
EMBL: K03105; AAA46490.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2003 (TrEMBLrel. 23, Created)
1-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Glutamate receptor ionotropic N-methyl D-aspartate-like lA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wydner K.S., Mohan Raj B.K., Sciorra L.J., Roginski R.S., Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AF465417; AA015648.1; -- EMBL; AF462416; AA015648.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                        34.0%; Score 17; DB 2; Length 8; 100.0%; Pred. No. 1.6e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB 2; Length 9;
Pred. No. 1.6e+06;
Moloney murine leukemia virus.
Viruses; Retroid viruses; Retroviridae; Gammaretrovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 AA; 1091 MW; 6A91233EB059C33B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE 8 AA; 732 MW; 98C2D5BEB44DC76D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGD; MGI:107282; Grinlla.
GO; GO:0004872; F:receptor activity; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q16468 PRELIMINARY; PRT; Q16468; 01-NOV-1996 (TrEMBLrel. 01, Created)
                                                                                               MEDLINE=82196891; PubMed=6281735;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34.0%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 50.0 tes 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. STRAIN=C57BL/6J;
                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                             SEQUENCE FROM N.A.
                                         NCBI_TaxID=11801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CSV 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 CSV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CKLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=Grinlla;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Receptor.
NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                   NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8CG13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q8CG13
```

Gaps

ö

Matches

ઠ

RESULT 8 Q16468 ID Q1646 AC Q1646 DT 01-N

ô

Gaps

. 0

Matches

ò 셤

RESULT 7

OSCOLO NO SERVING SERV

ß

```
Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 VPLTSV 8
                                                                                                 3 VPLTS 7
                                                                                                                      1 MPITN 5
                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :||
1 IPLKPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                     Q7M4R6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9TRU7;
                                                                                                                                                                            Q7M4R6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09TRU7
                                                                                                                                                       RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
                                                                                                                                                                  Q7M4R6
    지유
당
기
                                                                                                   ð
                                                                                                                      엄
                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=22660262; PubMed=12775700;
DOI=10.1128/JB.185.12.3624.3635.2003;
Amavisit P., Lightfoot D., Browning G.F., Markham P.F.;
"Variation between pathogenic serovars within Salmonella pathogenicity islands.";
                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
PACCAD clade, Panicoideae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Salmonella.
                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=22338269; PubMed=12450830; DOI=10.1128/ABM.68.12.6076.5002; BAKET J.A., Entech B., Neinan B.A., McKay D.B.; Monitoring changing toxigenicity of a cyanobacterial bloom by
                                                   SEQUENCE FROM N.A.
Ronning S.B., Berdal K.G., Vaitilingom M.M., Holst-Jensen A.;
Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
BMBL, AVI23624; AAM89275.1; -.
NON TER 1 1
SEQÜENCE 8 AA, 909 Mw; 6046C1B2D77412D7 CRC64;
                                                                                                                              32.0%; Score 16; DB 2; Length 8; 40.0%; Pred. No. 1.6e+06; tive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32.0%; Score 16; DB 2; Length 8; 100.0%; Pred. No. 1.6e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                           Micročystis sp. T96-1.
Bacteria; Cyanobacteria; Chroococcales; Microcystis.
NCBL_TaxID=198099;
                                                                                                                                                                                                                                                                      (TrEMBLrel. 22, Created)
(TrEMBLrel. 22, Last sequence update)
(TrEMBLrel. 22, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE 8 AA; 890 MW; F4DB01A73771A336 CRC64;
                                                                                                                                                                                                                                                    8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                        molecular methods.";
Appl. Environ. Microbiol. 68:6070-6076(2002)
EMBL; AX117046; AAMS4719.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 AA.
                                                                                                                                                                                                                                                                                                      Phycocyanin alpha subunit (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                         Best_Local Similarity 40.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Conservative
                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=28144;
                                                                                                                                                                          4 PLTSV 8
                                                                                                                                                                                              4 PVTQI 8
                              NCBI TaxID=4577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Salmonella derby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 PLT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 PLT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PipB (Fragment
                                                                                                                                                                                                                                                                       01-OCT-2002
01-OCT-2002
                                                                                                                                                                                                                                                                                            01-OCT-2002
                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                              QBKPX4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q849P4;
                                                                                                                                                                                                                                                   Q8KPX4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q849P4
                                                                                                                                                                                                                            RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
                                                                                                                                                                                                                                      STARBANES
                                                                                                                                                                          ò
                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shiraishi Y.; "Western blotting analysis for malignant lymphoma and stomach cancer antigens from carcinogen-transformed bloom syndrome cells."; Int. J. Cancer 45:783-787(1990).
                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2004 (TrEMBLrel. 26, Created)
1-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
118K stomach cancer antigen (Fragment).
118K stomach cancer antigen (Fragment).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The purification of a Rapl GTPase-activating protein from bovine brain cytosol.";
J. Biol. Chem. 267:1546-1553(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            U-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUM-2002 (TrEMBLrel. 21, Last annotation update)
GAP-3, GTPese-activating protein (Fragment).
Bos taurus (Bovine).
Bukaryota; Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
Bovinae; Bos.
11 NCBI_TAXID=9913;
                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nice E.C., Fabri L., Hammacher A., Holden J., Simpson R.J.,
Burgess A.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 16; DB 2; Length 9; Pred. No. 1.6e+06; 1; Mismatches 2; Indels
                                                                                                                                                                                0; Indels
                                                                                                                              Score 16; DB 2; Length 8; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2; Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 AA; 1063 MW; 89EDA77B47604B5A CRC64;
J. Bacteriol. 185;3624-3635(2003).
BMBL; AX144492; AAO49836.1; -.
NON TER
SEQÜENCE 8 AA; 861 MM; EFC5BDD451A04766 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 AA; 949 MW; 3D057042D7633737 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                               9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 AA.
                                                                                                                                                                                3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE.
MEDLINE=92112868; PubMed=1309786;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=90216080; PubMed=2323853;
                                                                                                                              32.0%;
40.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32.0%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32.0%;
                                                                                                                         Query Match
Best Local Similarity 40.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Int. J. Cancer 45:783
PIR; A60356; A60356.
NON TER 9
SEQUENCE 9 AA; 949
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE-97442476; PubMed=9295353; DOI=10.1074/jbc.272.38.24008;
Plummer N.W., McBurney M.W., Meisler M.H.;
"Alternative splicing of the sodium channel SCN8A predicts a truncated two-domain protein in fetal brain and non-neuronal cells.";
J. Biol. Chem. 272.24008-24015(1997).
EMBL; U97672; AAB80914.1; -..
MGD; MGI:103169; Scn8a.
GO; GO:0007628; P:adult walking behavior; IMP.
GO: GO:0007626; P:locomotory behavior; IMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
10-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Truncated voltage-gated sodium channel alpha subunit (Fragment).
Name=Scn8a;
Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBL TaxID=10090;
                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
50.0%; Pred. No. 1.6e+06; vative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 32.0%; Score 16; DB 2; Length 9; Best Local Similarity 75.0%; Pred. No. 1.6e+06; Matches 3; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE 9 AA; 898 MW; 22D92865B735B737 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
Best Local Similarity 50.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                   : | | | 4
4 IPYPSV 9
                                                                                                                         3 VPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |||:
1 VPLS 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 VPLT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ionic channel.
                                                                                                                                                                                                                                                                                                                                                                                                          035953
                                                                                                                                                                                                                                                                                                                          RESULT 15
035953
AC 035955
AC 035955
DT 01-074
                                                                                                                         ò
                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

Search completed: April 1, 2005, 11:23:56 Job time : 46.5 secs

THIS PAGE BLANK (uspto)

26 52.0 9 26 52.0 9 25 50.0 7 25 50.0 8	25 50.0 8 8 25 50.0 8 8	32 25 50.0 8 8 AD 34 25 50.0 9 2 AA 35 25 50.0 9 2 AA	255 500 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	255 50.00 99 7	25 50.0 9 7	0 6 0.00 07		RESULT 1 AAU04529 ID AAU04529 standard; peptide; 9	AX AAU04529;	or 26-SEP-2001 (first entry)	XX DE VEGF based monocyclic peptide	KW neovascularisation; lymphangio KW diabettes induced neovascular s KW diabetic retinopathy; chronic		FH Key Location/Quali FT Disulfide-bond 19		PN WO200152875-A1. XX	PD 26-JUL-2001	PF 18-JAN-2001; 2001WO-US001533.	PR 18-JAN-2000; 2000US-0176293P. PR 16-MAY-2000; 2000US-0204590P.	XX (LUDW-) LUDWIG INST CANCER RES	XX PI Achen MG, Hughes RA, Stacker	XX DR WPI; 2001-442248/47.	XX PT Novel monomeric monocyclic pep	or lymphangiogen from an exposed	residues.	PS Claim 49; Page 32; 102pp; Engl	The sequence represen whose 3-dimensional s	CC VEGFD (vascular endothelial gr CC method of producing a monomeri CC beta carbon separation distanc
5.1.6 Compugen Ltd.		Search time 58.5 Seconds (without alignments) 59.502 Million cell updates/sec			<b>0</b>	ers: 330156							cted by chance to have a of the result being printed,			Description	Aau04529 VEGF base Abi04424 Stem cell	Humar	G-prot G-prot		Adr42755 Modulator Ade98247 Immunogen	Ado24736 Mouse lep Adr11353 HLA-A2.1	Adc44660 Endotheli Adk65204 Human VEG	Ado24737 Mouse lep Aaw45666 HBV X 69	Aay46691 Immunogen Abp54842 Alpha-IIb	Ads33878 cMET-HGF Adb79677 Parapoxvi		Abp54826 Alpha-IIb Abp54835 Alpha-IIb Abp54823 Alpha-IIb
GenCore version 5. Copyright (c) 1993 - 2005 Cc	protein - protein search, using sw model	Run on: April 1, 2005, 11:11:16 ; Sear (wit 59.5	Title: US-09-761-636A-10 Perfect score: 50 Sequence: 1 CSVPLTSVC 9	Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5	Searched: 2105692 segs, 386760381 residues	Total number of hits satisfying chosen parameters	Minimum DB seq length: 0 Maximum DB seq length: 9	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries	ام		3: geneseqp2000s:* 4: geneseqp2001s:*	 : geneseqp2003bs:* : geneseqp2004s:*	Pred. No. is the number of results predicted score to greater than or equal to the score of the derived by analysis of the rotal score	SUMMARIES	* C Query	No. Score Match Length DB ID	50 100.0 9 4 37 74.0 9 5	32 64.0 9 5	30 60.0 7	30 60.0 9 5 29 58.0 9 8	9 29 58.0 9 8 0 28 56.0 8 8	1 28 56.0 8 8 2 28 56.0 8 8	3 28 56.0 9 7 4 28 56.0 9 7	5 28 56.0 9 6 27 54.0 9	7 27 54.0 9 2 8 27 54.0 9 5	9 27 54.0 9 8 0 26 52.0 7 7	1 26 52.0 7 8 2 26 52.0 9 4	23 26 52.0 9 5 ABP54826 24 26 52.0 9 5 ABP54835 25 26 52.0 9 5 ABP54823

26 52.0 9 6 ABR75294 27 26 52.0 9 8 ADR42761 29 25 50.0 7 3 AABS1972 30 25 50.0 8 8 ADG4484 31 25 50.0 8 8 ADG483149 32 25 50.0 8 8 ADG4501 33 25 50.0 8 8 ADG4609 34 25 50.0 9 2 AAY48844 35 25 50.0 9 2 AAY48844 36 25 50.0 9 3 AAY6817 37 25 50.0 9 5 ABJ04620 38 25 50.0 9 7 ADG7817 41 25 50.0 9 7 ADG7817 42 25 50.0 9 7 ADG78037 43 25 50.0 9 7 ADG78037 44 25 50.0 9 7 ADG78037 45 25 50.0 9 7 ADG78037 46 25 50.0 9 7 ADG78037 47 25 50.0 9 7 ADG78037 48 25 50.0 9 7 ADG78037 49 25 50.0 9 7 ADG78037	 Ade78117 Synthetic Ade78037 Synthetic Ade78097 Synthetic Ade77841 Synthetic Ade4586 Endotheli
20000000000000000000000000000000000000	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	00000
	 0 0 0 0 0 0

ALIGNMENTS

cular endothelial growth factor; angiogenesis; on; lymphangiogenesis; psoriasis; tumour; neovascular sequelae; rheumatoid arthritis; athy; chronic inflammation; cyclic. d; peptide; 9 AA. yclic peptide 7. rst entry)

Location/Qualifiers 1. .9 /note= "This bond cyclises the peptide"

Cendron A; s RA, Stacker S, monocyclic peptide, used to interfere with angiogenesis, lesis, is produced by cyclizing a peptide loop fragment loop of a growth factor protein by oxidizing the cysteine

2; 102pp; English.

resents a monomeric monocyclic peptide of the invention, and structure is modelled on the expose loop of human endothelial growth factor). The invention relates to a cing a monomeric monocyclic peptide by a measuring beta-ration distances on opposite antiparallel strands of a

peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, covacularisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, corebrovascular accident, post-angioplasty restenosis, head, heat or cretebrovascular accident, post-angioplasty restenosis, head, heat or cretebrovascular accident, post-angioplasty restenosis, head, heat or cretebrovascular accident, post-angioplasty restenosis, head, heat or cremma, substance-induced neovascularisation of the liver, excessive of hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in pertipheral limbs or in lungs, peritoned by fluid accumulation in peripheral limbs or in lungs, peritoned or cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a channer is relationally rheumatoid arthritis, psoriasis and diabetic retinopathy

Sequence 9 AA;

.. 0 100.0%; Score 50; DB 4; Length 9; 100.0%; Pred. No. 1.8e+06; Ative 0; Mismatches 0; Indels Query Match Beet Local Similarity luv.v. σ CSVPLTSVC 9 ઠ 셤

ö

Gaps

ABJ04424 standard; peptide; 9 AA. ABJ04424;

Stem cell (mesenchymal) targeting peptide 13. 24-OCT-2002 (first entry)

BRASIL; targeting peptide; bacterial infection; Biopanning and Rapid Analysis of Selective Interactive Ligands; diabetes; inflammatory arthritis; atherosclerosis; cancer; autoimmune disease; viral infection; cardiovascular disease; degenerative disease.

Unidentified

WO200220822-A2

14-MAR-2002.

07-SEP-2001; 2001WO-US028124.

08-SEP-2000; 2000US-0231266P. 17-JAN-2001; 2001US-00765101.

(TEXA) UNIV TEXAS SYSTEM.

Arap W, Pasqualini R;

WPI; 2002-404697/43.

Identification of targeting peptides that can be used to treat diseases e.g. cancer and arthritis, by the BRASIL (Biopanning and Rapid Analysis of Selective Ligands) method comprises a single differential centrifugation step.

Example 5; Page 75; 167pp; English.

```
of Selective Interactive Ligands) to obtain a targeting peptide. The Interactive Interactive Ligands) to obtain a targeting peptide. The BRASIL method of the invention involves: exposing a target to a phage car display library in a first phase; exposing the first phase to a second phase; and separating the phage bound to the target from unbound phage. The BRASIL method of the invention allows cell phages to be separated from the remaining unbound phage in a single differential centrifugation step. When compared to conventional cell panning methods, the BRASIL method shows a significant increase in recovery of specific phage and a substantial decrease in background. The BRASIL method is useful for identifying targeting peptides. The targeting peptides identified by the method of the invention are useful for treating disease states, such as: diseases, inflammatory arthritis; atherosclerosis; cancer; autoimmune disease; bacterial infection; viral infection; cardiovascular disease and degenerative disease. The present amino acid sequence represents a
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to a novel method for identifying disease targeting peptides. The method comprises exposing a sample from an organ, tissue or cell type of interest, to a phage display library and recovering phage bound to the sample (the phage expresses targeting peptides). The peptides identified by the method of the invention may
The invention comprises a method (BRASIL - Biopanning and Rapid Analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identifying targeting peptides useful for treating e.g. diabetes mellitus, inflammetory diseases, cancer, or autoimmue diseases, comprises exposing a sample to a phage display library and recovering phage bound to the sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunosuppressive; anti-inflammatory; antiarthritic; antiviral; antiatherosclerotic; antidiabetic; antibacterial; diabetes mellitus; inflammatory disease; arthritis; atherosclerosis; cancer; autoimmune disease; bacterial infection; viral infection:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pargeting peptide; cancer; Hodgkin's disease; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                             74.0%; Score 37; DB 5; Length 9; 66.7%; Pred. No. 1.8e+06; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human bone marrow targeting peptide #20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 56; Page 207; 298pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABG34948 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-SEP-2000; 2000US-0231266P.
17-JAN-2001; 2001US-00765101.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-SEP-2001; 2001WO-US027702.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-JUL-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arap W, Pasqualini R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-383050/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CSVPVSSSC
                                                                                                                                                                                                                                                                                                                                                                    Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200220722-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .4-MAR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG34948;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG34948
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

```
have cytostatic, immunosuppressive, anti-inflammatory, antiarthritic, antiatherosclerotic, antidabetic, antibacterial and antiviral activities. The methods and composition are useful for identifying targeting peptides and one or more receptors for a targeting peptide. The targeting peptides are used for selective delivery of therapeutic agents, including gene therapy vectors and fusion proteins, to specific organs, tissues, or cell types in subject. The targeting peptide may also be used for treating diseases such as diabetes mellitus, inflammatory diseases, arthritis, atherosclerosils, cancer, autoimmune diseases, bacterial and viral infections and Hodgkin's disease. The present sequence represents a targeting peptide of the invention
      88666666666688888
```

Sequence 9 AA;

```
.
0
 Score 32; DB 5; Length 9;
Pred. No. 1.8e+06;
0; Mismatches 3; Indels
                     .
0
64.0%;
                      6; Conservative
                                        6
                                                            9
                                        1 CSVPLTSVC
                                                           CSPPLTRWC
 Query Match
Best Local Similarity
                      Matches
                                                           쉱
```

ö

Gaps

ADK65202 standard; peptide; 9 AA. RESULT 4

ADK65202;

06-MAY-2004 (first entry)

Human VEGF-D-derived peptide #18 for anti-angiogenesis treatment.

ophthalmological; gynecological; antiarteriosclerotic; virucide; hepatotropic; dermatological; antiarteriosclerotic; virucide; hepatotropic; dermatological; antithyroid; immunization; antioporiatic; antithyroid; immunization; angiogenesis; vascular endothelial growth factor; VEGF; neuropilin; placental growth factor; tumor; neoplasias; metastases; inflammation; autoimmunity; eye disease; arthritis; endometriosis; arteriosclerosis; edema; hepatitis; Kaposi sarcom; diabetes; psoriasis; rheinatoid arthritis; thyroiditis; diabete; retinopathy; transplant rejection; macular degeneration; neovascular glaucoma; antiangiogenic; cytostatic; antiinflammatory; immunosuppressive; hemangioma; angiofibroma ADK65202

ID ADK6

AAC ADK6

XXX ADK6

XXX ADK6

XXX ADK6

XXX ADK7

XXX HOME

XXX HOME

XXX HOME

XXX BBBQ

PP R 11-1

PP R CLIM

XXX ADK7

PP R CLIM

CC CLIM

Homo sapiens.

WO2003086450-A1

23-OCT-2003

11-APR-2003; 2003WO-CU000004

LS-APR-2002; 2002CU-00000076.

(INGG-) CENT ING GENETICA & BIOTECNOLOGIA.

Gavilondo Cowley JV; Silva Rodriguez RDLC; Vazquez Blomquist DM; Bequet Romero M, Acevedo Casuro -.. Fernandez Molina LE, Lopez Ocejo O, Tana A, Galban Rodriguez E,

WPI; 2003-833615/77.

Active immunization against angiogenic proteins, useful for treating e.g. tumors and inflammation, particularly contains vascular endothelial growth factor or its receptor.

Disclosure; Page 18; 53pp; Spanish.

The invention relates to an active immunization against angiogenic proteins comprising administration of a vaccination composition (A), optionally containing an adjuvant, that comprises polypeptides (I) directly associated with an increase in angiogenesis, their variants, or

```
their encoding polynucleotides (II). Angiogenesis-associated polypeptides are: members of the vascular endothelial growth factor (VBGF) family, especially the 121, 165 or 189 isoforms of VEGF-A, the 167 isoform of C VBGF-B, or VEGF-C or -D; a (co-) receptor of VBGF, particularly VEGFR-I, -C 2 or -3; NRP-1 or -2 (members of the neuropilin family); or placental C G growth factor. (A) is used for treatment or prevention of tumors in mammals, particularly humans but also farm animals and pets, also many other conditions associated with excessive angiogenesis, specifically other conditions associated with excessive angiogenesis, specifically confirmention, autoimmunity and eye diseases (claimed). Among the diseases that may be treated are arthritis, endometriosis, arteriosclerosis, that may be treated are arthritis, endometriosis, arteriosclerosis, psoriasis, infections diseases (hepatitis and Kaposi sarrooms), diabetes, psoriasis, rheumatodid arthritis, thyroiditis, diabetic retinopathy, transplant rejection, macular degeneration, neovascular glaucoma, confirmed and angiofibroma. The method destroys cells that are the source of angiogenic proteins, rather than just neutralizing the activity of source of angiogenic proteins rather than just neutralizing the activity of such proteins (as in passive immunization). This sequence represente an immunisation peptides of the invention derived from the VEGF proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a novel method for producing a compound library. The novel method involves reducing a biological target into a group of one or more amino acids required for interaction with a ligand, to generate a model of the biological target, using the model to define a microenvironment in the biological target capable of interacting with the ligand, defining motifs which interact with the microenvironment, and assembling the motifs to generate a compound library for synthesis. The novel method is useful to produce compound libraries for screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Producing compound library, by generating biological target model using target sequence information, defining microenvironments interacting with ligand and motifs interacting with microenvironment, and assembling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Compound library; microenvironment; G-protein Coupled Receptor; GPCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 32; DB 7; Length 9;
Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G-protein coupled receptor peptide region #68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Pred. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Stevens AP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 3; 39pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABJ37356 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-2002; 2002WO-GB003094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-JUL-2001; 2001GB-00016570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rose VS,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
7; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BIOF-) BIOFOCUS PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-221549/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 SVPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 SVPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003004147-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Crossley R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABJ37356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABJ37356
         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
```

1 CSLPLT 6

ö

Gaps

; 0

```
The invention relates to a novel method for producing a compound library. The novel method involves reducing a biological target into a group of gene or more amino acids required for interaction with a ligand, to generate a model of the biological target, using the model to define a microenvironment in the biological target capable of interacting with the ligand, defining motifs which interact with the microenvironment, and assembling the motifs to generate a compound library for synthesis. The novel method is useful to produce compound library for synthesis. The novel method is useful to produce compound libraries for screening natural ligands such as peptides and proteins or for producing chemical peptide of a G-protein Coupled Receptor (GPCR) including Endothelin BT-A receptor, which relates to the novel compound library production method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Producing compound library, by generating biological target model using target sequence information, defining microenvironments interacting with ligand and motifs interacting with microenvironment, and assembling
natural ligands such as peptides and proteins or for producing chemical compounds based on drug motifs for screening. This sequence represents peptide of a G-protein Coupled Receptor (GPCR), which relates to the novel compound library production method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Compound library; microenvironment; G-protein Coupled Receptor; GPCR.
                                                                                                                                                                                                                                                                                                                                                                                                                            G-protein coupled receptor endothelin BT-A receptor peptide #68
                                                                                                         Score 30; DB 6; Lengtn ',
Pred, No. 1.8e+06;
                                                                                                                                                             1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Stevens AP;
                                                                                                                                                                                                                                                                                                                        ABJ37436 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Fig 7; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUL-2002; 2002WO-GB003094.
                                                                                                                        h
Similarity 83.3%;
5; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-JUL-2001; 2001GB-00016570
                                                                                                                                                                                                                                                                                                                                                                                             08-MAY-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Crossley R, Rose VS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BIOF-) BIOFOCUS PLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-221549/21
                                                                                                                          Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                              of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003004147-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7 AA;
                                                                                        Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-JAN-2003.
                                                                                                                                                                                                                                                                                                                                                            ABJ37436;
                                                                                                                                                                                                                                                                                     8×30033
                                                                                                                                                                                                                                 셤
```

```
The present invention describes a method for screening a ligand library (LL). The method comprises: (a) contacting the LL with an anti-target (IL). The method comprises: (a) contacting the bind to the AT; (b) separating unbound ligands with a selected target (T) to allow binding of unbound ligands with a selected target (T) to allow binding of unbound ligands with a selected target (T) to allow binding of unbound ligands to (T) to form a (T)-bound ligand (C) from ligands which do not bind (T); and (e) identifying (T)-bound ligands on (C). The method can be used for screening a ligand library, e.g., a library of peptides, polypeptides on orligonucleotides. A ligand (I) identified by the method can be used in a cleaning therapeutic or personal care application. The method is preferably useful for identifying peptide application. The method is preferably useful for identifying peptide complications, which involves contacting peptides application, which at target which is a stain such as porphyrin derived stain, and that target which is a stain such as porphyrin derived stain, and the attain soil-based derived stain, and with the stain to form stain-bound peptide complex and identifying the stain-bound peptide complex. A selective targeting method for screening a library of ligands that bind to a target under harsh conditions. The stain-bound peptide complex. A selective targeting method may be used to creen and identify a ligand useful for therapeutic intervention, e.g., a library of ligands may be used to creen and identify a ligand useful for therapeutic intervention, e.g., a library of ligands may be used to creen and identify a ligand useful for the sugeting method may be used to identify a tumour-bound ligand. The selective targeting conditions of the exemplification of the present invention. (Updated on 29-AUG-2003 to the exemplification of the present invention. (Updated on 29-AUG-2003 to the the exemplification of the present invention.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Screening ligand library comprises allowing binding of ligand with antitarget, contacting unbound ligands with selected target to form target-bound ligand complex and identifying target bound ligands on the complex
                                                                                                                                                                                                                                      Human; tumour necrosis factor alpha; TNF-alpha; VEGF; detergent; stain; bacteriophage; phage library; vascular endothelial growth factor; collar soil; polyurethane; egg; tea; hair; skin; cleaning composition.
                                                                                                                                                                                              Vascular endothelial growth factor binding peptide V-20 SEQ ID NO:98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tijerina P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 22; Page 28; 51pp; English.
                                          ABB05266 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-APR-2001; 2001WO-US011811.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .4-APR-2000; 2000US-0197259P.
                                                                                                                                                                                                                                                                                                                                       unidentified bacteriophage
                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GEMV ) GENENCOR INT INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Estell DA, Murray CJ,
                                                                                                                                      (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-139323/18.
                                                                                                                                                                                                                                                                                                                                                                                                        WO200179479-A2.
                                                                                                                                                                                                                                                                                                                                                                Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-OCT-2001.
                                                                                                                                                      04-APR-2002
                                                                                       ABB05266;
RESULT 7
                       ABB0526
```

ö

Gaps

. 0

Score 30; DB 6; Length 7; Pred. No. 1.8e+06; 1; Mismatches 0; Indels

60.0%;

Query Match Best Local Similarity 83.3 Matches 5; Conservative

CSVPLT 6

ð

Chemokine-binding peptide; MCP-1; SDF-lalpha; MIG; eotaxin; interleukin-8; abnormal cell migration; vaccine; intilammation; allergy; non-optimal immune response; autoimmune reaction; allograft rejection; diabetes; sepsis; cancer; malignant cell growth; bacterial infection;

Modulatory chemokine-binding peptide BKT-P78

18-NOV-2004 (first entry)

ADR42755;

viral infection; arthritis; colitis; psoriasis; atherosclerosis;

hypertension; reperfusion ischaemia.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           reading frame of a pathogenic virus, where the polypeptide starts with a methionine amino acid residue, which comprises an antigenic determinant and more than 7 amino acid residues. The invertion may be useful for the production of compounds with a virucide activity or the development of a vaccine. The polypeptide or its fragments may be useful as a therapeutic agent. It is also useful for the manufacture of a medicament for treating or preventing an infection with the pathogenic virus. The present sequence is that of a human papillomavirus (HPV) epitope peptide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New polypeptide encoded by an alternative reading frame of a pathogenic virus comprising an antigenic determinant, useful for treating or preventing an infection with the pathogenic virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a novel polypeptide encoded by an alternative
                                                               Gaps
                                                                                                                                                                                                                                                                                                                               pathogenic virus; alternative reading frame; antigenic determinant; virucide; vaccine; therapeutic agent; infection; HPV.
                                                              ;
0
                             Score 30; DB 5; Length 9;
Pred. No. 1.8e+06;
2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                  Human papillomavirus peptide #1581.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 18; Page 190; 220pp; English.
                                                                                                                                                                                                     ADK09526 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Habel A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-JUL-2003; 2003WO-EP008112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JUL-2002; 2002AT-00001124
11-JUL-2003; 2003EP-00450171
                               60.08;
             Ouery Match
Best Local Similarity 44.4%,
Best Local Similarity 44.4%,
                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mattner F, Schmidt W,
                                                                                           1 CSVPLTSVC 9
                                                                                                                        CKMPTSKVC 9
                                                                                                                                                                                                                                                                                                                                                                             Human papillomavirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (INTE-) INTERCELL AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-169243/16.
                                                                                                                                                                                                                                                                                                                                                                                                            WO2004011650-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 9 AA;
Sequence 9 AA;
                                                                                                                                                                                                                                                                   06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                             05-FEB-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention.
                                                                                                                                                                                                                                    ADK09526;
                                                                                                                                                                        RESULT 8
                                                                                                                                                                                        ADK09526
S
                                                                                                                                                                                                       ઠે
                                                                                                                       셤
```

Vaizel-Ohayon D;

Eizenberg O,

Peled A,

WPI; 2004-625117/60.

(BIOK-) BIOKINE THERAPEUTICS LTD. 27-FEB-2003; 2003WO-IL000155.

28-AUG-2003; 2003US-00649873.

US2004171552-A1

Synthetic.

02-SEP-2004.

```
antibody capable of recognising at least a portion of a chemokine binding receptor, where the antibody also recognises a portion of a chemokine binding receptor, where the antibody also recognises a peptide of the sequence of the modulator), a vaccine formed with the antibody and method for producing an antibody (by inducing formation of antibody against a chemokine modulator, where the cartibody is also capable of recognising a chemokine binding receptor). The method, therapeutic agents and compositions are useful for treating a disease modulated through and/or caused by binding of a chemokine to a chemokine receptor, e.g. primary and secondary inflammation, allergy, non coptimal immune response, autoimmune reaction, allograft rejection, diabetes, sepsis, cancer, any type of malignant cell growth, acute and chronic bacterial and viral infections, arthritis, colitis, psoriasis, chronic bacterials, hypertension or reperfusion lechaemia. The present sequence is a modulatory chemokine-binding peptide of the invention binding chemokines MCP-1, SDF-lalpha, MIG, eotaxin and interleukin-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in interinction claims to peptical composition of the amino acids histidine (H), serine (S), alanine (A), leucine (L), solution (H), serine (S), alanine (A), leucine (L), and ceaturing at least 2 Histidines spread along said molecule, where the molecule features an overall positive charge (family 1) or a molecule composed of the amino acids H, P, T, L, R, Tryptophan (W), phenylalanine (F), and featuring at least two neighbouring histidines, where the molecule features an overall positive charge (family 2) and/or a molecule (F), and featuring at least two neighbouring histidines, where the comprising a peptide having an amino acid sequence from a list, given in the specification. Also included are a composition for treating a condition involving abnormal cell migration in a subject (comprising a therapeutic agent for administering to the subject, where therapeutic agent for administering to the subject (where therapeutic agent in a subject (by administering the therapeutic agent), an antibody for binding a chemokine receptor in a subject (by administering the therapeutic agent), an antibody for binding a chemokine binding receptor (comprising the binding the bin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New peptidic chemokine modulators for modulating a biological effect of chemokine, useful for treating a condition involving abnormal cell migration in a subject, e.g. inflammatory condition, or cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to peptidic chemokine modulators for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 19; SEQ ID NO 29; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   metastasis.
```

Length 9;

Score 29; DB 8; I Pred. No. 1.8e+06;

58.0%;

Best Local Similarity

Query Match

ADR42755 standard; peptide; 9 AA.

ADR42755 ID ADR4 XX

RESULT 9

ö

Gaps

ó

Score 29; DB 8; Length 9; Pred. No. 1.8e+06; 2; Mismatches 2; Indels

58.0%; 50.0%;

Local Similarity 50.0

Matches

Query Match

CSVPLTSV 8 COTPLINI

ઠે 셤

ઠે g

```
29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-MAY-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Grasso P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADO24736;
                                                                                                                                                                                                                                          Query Match
Best Local 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein
                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AD024736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88888888
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention describes an immunogenic peptide composition comprising 9 residues including a first conserved residue at a second bosition from Neterminus, and a second conserved residue at C-terminal position. The inventive peptide composition is used to elicit an immune response against a desired antigen for preventing, treating or diagnoshing pathological states, e.g. prostate cancer, hepatitis B, hepatitis C, AIDS, renal carcinoma, cervical carcinoma, lymphoma, cytomegalovirus (CWV), and condlylloma acuminatum. It is also used to treat autoimmune associated disorders, e.g. multiple sclerosis, rheumatoid arthritis, sjogren syndrome, scleroderma, polymyositis, dermatomyositis, systemic lupus erythematosus, juvenile rheumatoid arthritis, ankylosing
  ö
                                                                                                                                                                                                                                                                                                                                                                                                       cytostatic; anti-inflammatory; hepatotropic; virucide; anti-HIV; nephrotropic; neuroprotective; antiarthritic; antirheumatic; harmunosperessive; dermacological; muscular; nephrotropic; thyromimetic; haemostatic; antithyroid; antianaemic; anabolic; hypertensive; immunogenic peptide composition; immune response; prostate cancer; hepatitis B, hepatitis C, AIDS; renal carcinoma; cervical carcinoma; lymphoma; cytomegalovirus; CMV; condlylloma acuminatum; autoimmune associated disorder; multiple sclerosis; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sjogrem syndrome; scleroderma; polymyositis; dermatomyositis; systemic lupus erythematosus; juvenile rheumatoid arthritis; systemic lupus erythematosus; juvenile rheumatoid arthritis; pentylosing spondylitis; myasthenia gravis; MG; bullous pemphigoid; pemphigus; glomerulonephritis; Goodpasture's syndrome; autoimmune haemolytic anaemia; Hashimoto's disease; pernicious anaemia; idiopathic thrombocytopenic purpura; Grave's disease; Addison's disease; human leukocyte anitgen A2.1; HLA A2.1; munogenic HLA-A2.1 binding peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunogenic peptide composition for preventing, treating or diagnosing pathological states, e.g. prostate cancer, hepatitis B and C, Acquired Immunodeficiency Syndrome, and renal carcinoma, includes conserved residues at specified positions.
  Gaps
  ö
  Indels
  3,
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                    Immunogenic HLA-A2.1 binding peptide #729.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 5; Page 12; 38pp; English
                                                                                                                                                                                                                      ADE98247 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93US-00027146.
93US-00073205.
93US-00159184.
94US-00349177.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sidney J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-APR-2002; 2002US-00116557
                                                                                                                                                                                                                                                                                                                      12-FEB-2004 (first entry)
     Conservative
                                                  CSVPLTSVC 9
                                                                                               CSRPAMNVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-041186/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sette A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SETTE A. SIDNEY J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GREY H M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003185822-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J5-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-OCT-2003
     5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Grey HM,
                                                                                                                                                                                                                                                                      ADE98247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GREY/) (SETT/) (SIDN/)
     Matches
                                                                                                                                                                                             ADE99247

XXX
XXX
ADE99247

ADE972

ADE973

ADE973
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel isolated polypeptide comprising leptin-related OB3 peptide sequence capable of modulating body mass, useful for treating or preventing obesity, Type II diabetes mellitus or hyperglycemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to an isolated polypeptide (I) comprising a leptinrelated OB3 peptide sequence, where at least one of the amino acid is in the D-isoform. The polypeptide reduces food intake and blood glucose. This sequence corresponds to amino acids 116-123 of the mouse leptin
spondylitis, myasthenia gravis (MG), bullous pemphigoid, pemphigus, glomerulonephritis, Goodpasture's syndrome, autoimmune hemolytic anemia, Hashimoto's disease, pernicious anaemia, idiopathic thrombocytopenic purpura, Grave's disease, and Addison's disease. The invention defines positions within a motif enabling the selection of the peptides, which will bind efficiently to human leukocyte anitgen (HLA) A2.1. This is the amino acid sequence of an immunogenic HLA-A2.1 binding peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             anorectic; antidiabetic; anabolic; body mass modulator;
insulin release modulator; leptin; OB3 peptide; food intake reduction;
blood glucose reduction; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56.0%; Score 28; DB 8; Length 8; 71.4%; Pred. No. 1.8e+06; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                            Score 28; DB 8; Length 8;
Pred. No. 1.8e+06;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rozhavskaya-Arena M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CLFM-) CLF MEDICAL TECHNOLOGY ACCELERATION PROG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse leptin protein peptide LEP(116-123).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 11; Page 83; 143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADO24736 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lee DW, Leinung MC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-OCT-2003; 2003WO-US034820.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-OCT-2002; 2002US-0422723P.
                                                                                                                                                                                                                                                                                                                  56.0%;
                                                                                                                                                                                                                                                                                                                                        Similarity 71.4%;
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-400140/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSVPLTS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CSVPLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CSLPQTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CEVPATS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2004039832-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8 AA;
                                                                                                                                                                                                                                                          Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

RESULT 12

```
Example 5; Page 12; 36pp; English
                                 ADR11353 standard; peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-FEB-2004; 2004US-00770493.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93US-00159184
94US-00205713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Grey HM, Sette A, Sidney J;
                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (EPIM-) EPIMMUNE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2004-592793/57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2004157780-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-MAR-1994;
                                                                                                                                        04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-AUG-2004.
                                                                                      ADR11353;
ADRII353
ADRII ADR
```

```
RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADC44660
8888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention describes a pharmaceutical composition (PI) comprises a carrier and a peptide (AI) capable of binding an HLA-A2.1 molecule and carrier and a peptide (AI) capable of binding an HLA-A2.1 molecule and carrier and a peptide (AI) capable of binding an HLA-A2.1 molecule and composition (CI) comprising an immunogenic peptide having an HLA-A2.1 binding motif and 9 residues selected from either first conserved creations and second conserved residues selected from V, I, I, A and M at the carbon-terminal position; or first conserved residue selected from L, I, A and M at the C-terminal position; and a composition (C2) comprising an immunogenic peptide having an HLA-A2.1 conserved residue selected from A or M at the C-terminal position; and a composition (C2) comprising an immunogenic peptide having an HLA-A2.1 conserved residue selected from I, I, V, A, or T at the second position from the CC residue selected from I, I, V, A, or T at the second position from the CC reminal position. I'A, I, V, A, or T at the second position from the CC reminal position. The first and second conserved residue selected from V, I, I, A or M CC at the C-terminal position. The first and second conserved residues are separated by 7 residues. Also disclosed are new peptides capable of binding aelected major histocompatibility complex (MHC) molecules and conducting an immune response. The pharmaceutical compositions are useful for the treatment of human viral diseases (c) prostate cancer, hepatitis B, hepatitis C, AlDS, renal carcinoma, cervical carcinoma, cutoimmune diseases, and to relieve the symptoms of, treat or prevent the cocurrence or reoccurrence of autoimmune diseases e.g. multiple sclerosis (MS), rheumatoid arthritis, Sjogren syndrome, scleroderma, polymyositis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antinflammatory; neuroprotective; antirheumatic; antiarthritic; dermatological; muscular; nephrotropic; antianaemic; thyromimetic; haemostatic; anabolic; hypertensive; antianaemic; thyromimetic; haemostatic; anabolic; hypertensive; antianaemic; thyromimetic; haemostatic; anabolic; hypertensive; antianaemic; thyromimetic; major histocompatibility complex; MHC; human viral disease; major histocompatibility complex; MHC; human viral disease; headitis B; hepatitis C; AIDS; renal carcinoma; cervical carcinoma; lymphoma; cytomegalovirus; condylyloma acuminatum; cancer; autoimmune disease; multiple sclerosis; rheumatoid arthritis; systemic lupus erythematosus; julymyositis; dermatomyositis; systemic lupus erythematosus; julymyositis; dermatomyositis; ankylosing spondylitis; myasthemia gravis; bullous pemphigoid; pemphigus; glomerulonephritis; Goodpasture's syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            autoimmune haemolytic anaemia; Hashimoto's disease; pernicious anaemia;
idiopathic thrombocytopenic purpura; Grave's disease; Addison's disease;
T cell activation; poly-A-binder; HLA-A2.1 binding assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pharmaceutical composition useful for treating viral disease, autoi disease and cancer comprises a peptide capable of binding HLA-A2.1 molecule and inducing an immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytostatic; virucide; immunosuppressive; anti-HIV; hepatotropic;
                                                                                                                                                                                                                                                                                                                                                     HLA-A2.1 binding assay poly-A-binder peptide #4.
```

```
The invention relates to a novel isolated, synthetic or recombinant peptide or polypeptide which includes one or more endothelial cell peptide of the invention has anticumous, cytostatic, vasotropic, antipporiatic, dermatological, cumour, cytostatic, vasotropic, antiarthritic, vulnerary, antiulcer, copthalmological, antidiabetic, antiarthritic, vulnerary, antiulcer, copthalmological, antidiabetic, antiarthritic, vulnerary, antiulcer, copthalmological, statistic, antiarthritic, vulnerary, antiulcer, copthalmological, statistic, antidiabetic, antiarthritic, vulnerary, antiulcer, copthalmological, antidiated, and promote proliferation and/or migration of the endothelial cells, by treating the cells with an ECBP aggonist, which is preferably the peptide, to promote proliferation and/or migration of the treated cells, and for reducing or promoting angiogenesis, by treating the cells with an ECBP antagonist, which is preferably the peptide of the invention is also useful for manufacturing a medicament for promoting angiogenesis at one or more sites in a treated mammal. The medicament is useful for promoting or reducing or reducing
                                                                                                                                                                                                                                                                                                                                                          ö
dermatomyositis, systemic lupus erythematosus, juvenile rheumatoid arthritis, ankylosing spondylitis, myasthenia gravis, bullous pemphigoid, pemphigus, glomerulonephitis, Goodpasture's syndrome, autoimmune haemolytic anaemia, Hashimoto's disease, pernicious anaemia, idiopathic thrombocytopenic purpura, Grave's disease, and Addison's disease. The compositions are capable of specifically binding glycoproteins encoded by HLA-A2.1 allele and inducing T cell activation in T cells restricted by the A2.1 allele. This is the amino acid sequence of a poly-A-binder peptide used for HLA-A2.1 binding assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel synthetic or recombinant polypeptide useful for promoting, reducir proliferation and/or migration of endothelial cells, and for modulating angiogenesis, has endothelial cell binding protein sequences.
                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                endothelial cell binding protein; BCBP; anti-tumour; cytostatic; vasotropic; antipsoriatic; dermatological; ophthalmological; antiatthritic; vulnerary; antiulcer; antiinflammatory; antibacterial; gynaecological; anglogenesis.
                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                     2; Indels
                                                                                                                                                                                                                                                                                                    56.0%; Score 28; DB 8; Length 8; 71.4%; Pred. No. 1.8e+06; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Endothelial cell binding peptide SEQ ID NO:389.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tsaioun K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; SEQ ID NO 389; 126pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gyuris J, Lamphere L, Morris AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADC44660 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-2002; 2002WO-US035258.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-2001; 2001US-0334822P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                       5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GPCB-) GPC BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-482072/45.
                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                      1 CSVPLTS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CEVPATS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003037172-A2.
                                                                                                                                                                                                                                                        Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADC44660;
                                                                                                                                                                                                                                                                                                         Query Match
```

```
The invention relates to an active immunization against angiogenic proteins comprising administration of a vaccination composition (A), optionally containing an adjuvant, that comprises polypeptides (I) directly associated with an inorease in angiogenesis, their variants, or their encoding polynucleotides (II). Angiogenesis-associated polypeptides are: members of the vascular endothalial growth factor (VGGF) family, especially the 121, 165 or 189 isoforms of VGGF-A, the 167 isoform of VGGF, or VGGF-C or -D, a (CO-)receptor of VGGF, particularly VGGFR-1, 2 or -3; NRP-1 or -2 (members of the neuropilin family); or placental growth factor. (A) is used for treatment or prevention of tumors in mammals, particularly humans but also farm animals and pets, also many other conditions associated with excessive angiogenesis, specifically
                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Active immunization against angiogenic proteins, useful for treating e.g. tumors and inflammation, particularly contains vascular endothelial growth factor or its receptor.
angiogenesis. ECBP sequences are useful to alter the infectivity spectrum of a viral particle. The present sequence represents an ECBP of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antiangiogenic; cytostatic; antiinflammatory; immunosuppressive; ophthalmological; gynecological; antiarteriosclerotic; virucide; hepatotropic; dermatological; anti-HIV; antidabetic; antipsoriatic; antirheumatic; antiarthritic; antithyroid; immunization; angiogenesis; vascular endothelial growth factor; VEGF; neuroplin; placental growth factor; tumor; neoplasias; metaetases; inflammation; autoimmunity; eye disease; arthritis; endometriosis; arteriosclerosis; edema; hepatitis; Kaposi sarcoma; diabetes; psoriasis; rheumatoid arthritis; thyroiditis; diabetic retinopathy; transplant rejection; macular degeneration; neovascular glaucoma;
                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human VEGF-D-derived peptide #20 for anti-angiogenesis treatment.
                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gavilondo Cowley JV;
Silva Rodriguez RDLC;
Vazquez Blomquist DM;
                                                                                                                                Score 28; DB 7; Length 9; Pred. No. 1.8e+06; 3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (INGG-) CENT ING GENETICA & BIOTECNOLOGIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bequet Romero M, Acevedo Castro BE,
Fernandez Molina LE, Lopez Ocejo O,
Musachio Lasa A, Galban Rodriguez E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 18; 53pp; Spanish.
                                                                                                                                                                                                                                                                                                                                                ADK65204 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-APR-2003; 2003WO-CU000004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-APR-2002; 2002CU-0000076.
                                                                                                                                  56.0%;
33.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                          06-MAY-2004 (first entry)
                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hemangioma; angiofibroma
                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-833615/77.
                                                                                                                                                                                                                                      | :| :|
CDLPTSRIC
                                                                                                                                                                                                                1 CSVPLTSVC
                                                                                                                                                          Sest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003086450-A1
                                                                                                  Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                          3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                        ADK65204;
                                                                                                                                      Query Match
                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                ADK65204
                                                                                                                                                                                                                                                                                                                                                    ន្តដូលប្រ
                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                  원
```

```
ö
                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel isolated polypeptide comprising leptin-related OB3 peptide sequence capable of modulating body mass, useful for treating or preventing obesity, Type II diabetes mellitus or hyperglycemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to an isolated polypeptide (I) comprising a leptin-
related OB3 peptide sequence, where at least one of the amino acid is in
the D-isoform. The polypeptide reduces food intake and blood glucose.
This sequence corresponds to amino acids 116-124 of the mouse leptin
malignant or benign neoplasias (and their metastasss), acute or chronic inflammation, autoimmunity and eye diseases (claimed). Among the diseases that may be treated are arthritis, endometriosis, arteriosclerosis, edema, infectious diseases (hepatitis and Kaposi sarcoma), diabetes, psoriasis, rheumatoid arthritis, thyroiditis, diabetic retinopathy, transplant rejection, macular degeneration, neovascular glaucoma, hemangioma and angiofibroma. The method destroys cells that are the source of angiogenic proteins, rather than just neutralizing the activity of such proteins (as in passive immunization). This sequence represents an immunisation peptides of the invention derived from the VEGF proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   anorectic; antidiabetic; anabolic; body mass modulator;
insulin release modulator; leptin; OB3 peptide; food intake reduction;
blood glucose reduction; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56.0%; Score 28; DB 8; Length 9; 71.4%; Pred. No. 1.8e+06; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                       56.0%; Score 28; DB 7; Length 9; 100.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rozhavskaya-Arena M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLFM-) CLF MEDICAL TECHNOLOGY ACCELERATION PROG.
                                                                                                                                                                                                                                      100.0%; Prec. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mouse leptin protein peptide LEP(116-124).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 11; Page 83; 143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                            ADO24737 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Leinung MC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-OCT-2003; 2003WO-US034820.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-OCT-2002; 2002US-0422723P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5; Conservative
                                                                                                                                                                                                                            Query Match 56.0
Best Local Similarity 100.
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-400140/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lee DW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CSLPOTS
                                                                                                                                                                                                                                                                                            3 VPLTSV 8
                                                                                                                                                                                                                                                                                                                            1 VPLTSV 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CSVPLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2004039832-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9 AA;
                                                                                                                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-MAY-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Grasso P,
                                                                                                                                                                                                                                                                                                                                                                                                                                               AD024737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ds snw
                                                                                                                                                                                                                                                                                                                                                                                              AD024737
                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                            임
          888888888888888
                                                                                                                                                                                                                                                                                              ð
```

THIS PAGE BLANK (USPTO)

```
(without alignments)
44.542 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                               April 1, 2005, 11:24:02 ; Search time 67 Seconds
                                                                                                                                                                                                                              135600
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                       1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                         Published_Applications_AA:*
                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                               OM protein - protein search, using sw model
                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                   US-09-761-636A-10
50
1 CSVPLTSVC 9
                                                                                                                                                                                                                                                      Minimum DB seq length: 0 Maximum DB seq length: 9
                                                                                                                                                                    Scoring table:
                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                              Sequence:
                                                                                                                                                                                                       Searched:
                                                                       Run on:
                                                                                                                     Title:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

					SUMMARIES		
Result No.	Score	% Query Match	% Query Match Length DB	DB	QI	Description	
1	50	100.0	6	. 6	US-09-761-636A-10	Sequence 10, Appl	
7	32	64.0	0	15	US-10-363-208-24	Sequence 24, Appl	
m	30	60.0	σ	σ	US-09-832-723-98	Sequence 98, Appl	
4	30	0.09	σv	14	US-10-303-331-98	Sequence 98, Appl	
Ŋ	29	58.0	σ	16	US-10-649-873-29	Sequence 29, Appl	
9	28	56.0	80	17	US-10-698-510-41	Sequence 41, Appl	
7	28	56.0	σ	14	US-10-286-457-389	Sequence 389, App	
80	28	56.0	σ	17	US-10-698-510-42	Sequence 42, Appl	
σ	56	52.0	7	17	US-10-808-187-782	Sequence 782, App	
10	26	52.0	σ	σ	US-09-760-599-34	Sequence 34, Appl	
11	. 26	52.0	σ	14	US-10-254-446A-147	Sequence 147, App	
12	26	52.0	D	16	US-10-649-873-35	Sequence 35, Appl	
13	25	50.0	7	17	US-10-808-187-1071	Sequence 1071, Ap	

Seguence 480, App	Sequence 609, App	e 48.	25,	e 36	e 387, 1	361	254	25	11,	e 2,	ď	20	21	e 22	23	9 24	e 25,	e 26,		e 40,		6	equence 17,	36,	equence 38,	_	e 249	e 323	e 349	46	Sequence 6, Appli	
US-10-462-452-480	US-10-601-953-609	3-10-322-266-4	US-09-760-599-25	3-10-006-869-	-10-286-457-3	-10-395-032-	10-838-289-2	-10-615-479B-2	9-761-	10-458-334-	-10-698-51	-10-698-510-	US-10-698-510-21	-10-698-510-	-10-6	-10-698-510-	-10-698-510-2	-10-698-510	10-698-510-2	-10-698-510-	08-344-824-29	39-760-5	19-760-599-1	9-760-	09-760-599-3	09-760-599-4	-09 - 935 - 43	-09-935-430-3	-09-935-43	-09-935-430-4	US-09-747-802-6	
15	15		σ			15		17	σ	15	17	17	17	17	17	17	17	17	17	17	æ	σ	σ	σ	σ	σ	10	10	10	10	10	
80	œ	80	6	6	Q	9	6	0	7	7	7	7	7	7	7	7	7	7	7	7	σ	0	σ	σ	σı	σ	0	σ	σ	თ	σ	
50.0	0	ö	ö	ö	ö	ö	50.0	°.	æ		•		48.0		48.0	٠	48.0		48.0	•	•			48.0	•			٠		48.0	•	
25	25	25	25	25	25	25	25	25	24	24	24	24	24	24	24									24								
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	

ALIGNMENTS

```
Gaps
Sequence 10, Application US/09761636A
; Sequence 10, Application US/09761636A
; Patent No. US20020065218A1
; GENERAL INFORMATION:
APPLICANT: ATACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Augela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
; CURRENT PLING DATE: 2001-01-18
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-16
; RIOR APPLICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-01-16
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.0
; EDNGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 50; DB 9; Length 9; 100.0%; Pred. No. 1.3e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
; ORGANISM: Homo sapiens
US-09-761-636A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 9; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

RESULT 2 US-10-363-208-24

ö

```
1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CSRPAMNVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CKMPTSKVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
5, Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 9
                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                     APPLICANT: Board of Regents, The University of Texas System TITLE OF INVENTION: Methods and Compositions for In Vitro Targeting FILE REPERBINE: 005774.P005PCT CURRENT APPLICATION NUMBER: US/10/363,208

CURRENT FILING DATE: 2.003-03-07

NUMBER OF SEQ ID NOS: 273

SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: peptides screened from a phage display random COTHER INFORMATION: peptide library US-09-832-723-98
                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                 Score 32; DB 15; Length 9; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60.0%; Score 30; DB 9; Length 9; 44.4%; Pred. No. 1.3e+06; ive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 98, Application US/09832723

Sequence 98, Application US/09832723

Patent No. US20020098524A1

GENERAL INFORMATION:

APPLICANT: Estell, David A.

APPLICANT: Chen, Yiyou

APPLICANT: Titerona, Pilar

TITE OF INVENTION: METHODS FOR SELECTIVE TARGETING

FILE REFERENCE: GC617-2

CURRENT APPLICATION NUMBER: US/09/832,723

CURRENT APPLICATION NUMBER: US 60/197,259

PRIOR RILING DATE: 2000-04-14

NUMBER OF SEQ ID NOS: 117

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 98

LENTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 98, Application US/10303331
Publication No. US20030152976A1
GENERAL INFORMATION:
APPLICANT: Janssen, Giselle G.
APPLICANT: Wirray, Christopher J.
APPLICANT: Winetzky, Deborah S.
TITLE OF INVENTION: METHODS FOR SELECTIVE TARGETING
                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                               NAME/KEY: Peptide

COCATION: (1)..(9)

OTHER INFORMATION: synthetic construct

US-10-363-208-24
Sequence 24, Application US/10363208
Publication No. US20040048243A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                 64.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                          6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSPPLTRWC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CKMPTSKVC 9
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-09-832-723-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-303-331-98
                                                                                                                                                                                                  SEQ ID NO 24
                                                                                                                                                                                                                   LENGTH: 9
                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

```
Sequence 29, Application US/10649873

Sequence 29, Application US/10649873

Subbication No. US20040171552A1

GENERAL INFORMATION:

APPLICANT: Bickine Therapeutics Ltd.

APPLICANT: Bizenberg, Orly

APPLICANT: Vaizel-Ohayon, Dalit

TITLE OF INVENTION: NOVEL CHEMOKINE BINDING PEPTIDES CAPABLE OF MODULATING THE

TITLE OF INVENTION: NOVEL CHEMOKINE BINDING PEPTIDES CAPABLE OF MODULATING THE

TITLE OF INVENTION: BIOLOGICAL ACTIVITY OF CHEMOKINES

FILE REPERENCE: 26732

CURRENT APPLICATION NUMBER: US/10/649,873

CURRENT PILING DATE: 2003-08-28

NUMBER OF SEQ ID NOS: 157

SOFTWARE: PatentIn version 3.2

FENCIN O 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: peptides screened from a phage display random ; OTHER INFORMATION: peptide library US-10-303-331-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60.0%; Score 30; DB 14; Length 9;
44.4%; Pred. No. 1.3e+06;
ive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 29; DB 16;
Pred. No. 1.3e+06;
1; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-698-510-41

Sequence 41, Application US/10698510

Publication No. US20050049193A1

GENERAL INFORMATION:
APPLICANT: Grasso, Patricia
APPLICANT: Lee, Daniel
APPLICANT: Leinung, Matthew
TILE OF INVENTION: Leptin Related Peptides
FILE REFERENCE: 19705-001CTP
CURRENT APPLICATION UNMER: US/10/698,510

CURRENT FILING DATE: 2003-10-31

PRIOR APPLICATION NUMBER: US 60/422,723
FILE REFERENCE: GC617-3
CURRENT APPLICATION NUMBER: US/10/303,331
CURRENT FILING DATE: 2002-11-25
FRIOR APPLICATION NUMBER: US 09/832,723
PRIOR FILING DATE: 2001-04-11
PRIOR FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-04-14
NUMBER OF SEQ ID NOS: 125
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 98
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; FEATURE:
; OTHER INFORMATION: Synthetic peptide
US-10-649-873-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 60.0
Best Local Similarity 44.4
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
```

요

```
APPLICANT: GLAM, KWOK HUNG
APPLICANT: GLAM, KWOK HUNG
APPLICANT: GLAM, KWOK HUNG
APPLICANT: NICHOLLS, JOHN
TITLE OF INVENTION: A DIAGNOSTIC ASSAY FOR THE HUMAN VIRUS CAUSING SEVERE ACUTE
TITLE OF INVENTION: A DIAGNOSTIC ASSAY FOR THE HUMAN VIRUS CAUSING SEVERE ACUTE
TITLE OF INVENTION: A DIAGNOSTIC ASSAY
FILE REFERENCE: V9661.0078
CURRENT APPLICATION NUMBER: 06/457,031
PRIOR PELING DATE: 2003-03-24
PRIOR PELING DATE: 2003-03-24
PRIOR PELING DATE: 2003-04-03
PRIOR PELING DATE: 2003-04-04
PRIOR PELING DATE: 2003-04-14
PRIOR PELING DATE: 2003-04-14
PRIOR PELICATION NUMBER: 60/464,866
PRIOR PELING DATE: 2003-04-23
PRIOR PELING DATE:
                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                               Gaps
       ; LENGTH: 9
; TYPE: PRT
; ORGANIEM: Artificial
; FEATURE:
; OTHER INFORMATION: Truncated analog of mouse leptin SEQ ID NO:12
US-10-698-510-42
                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                       Length 9;
                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 26; DB 17; Length 7;
Pred. No. 1.3e+06;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT ORGANISM: Human severe acute respiratory system virus
                                                                                                                                                                                                                                                    Score 28; DB 17;
Pred. No. 1.3e+06;
1; Mismatches 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-808-187-782

Sequence 782, Application US/10808187

Publication No. US200500090091

GENERAL INFORMATION:
APPLICANT: PEIRIS, JOSEPH S. M.
APPLICANT: YUEN, KWOK YUNG

APPLICANT: POON, LIT MAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-09-760-599-34
; Sequence 34, Application US/09760599
; Patent No. US20010034326A1
; GENERAL INFORMATION:
; APPLICANT: Larson Mr., Richard S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52.0%;
                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   ||:| ||
2 CSLPQTS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSVPLTS 7
                                                                                                                                                                                                                                                                                                                                                                                            1 CSVPLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CSKPLNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-808-187-782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: artificial sequence isolated from random peptide libraries, based ; OTHER INFORMATION: ability to selectively bind to endothelial cells US-10-286-457-389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MSGUENCE 389, Application US/10286457

Sequence 389, Application US/10286457

PUBLICATION NO. US20030166004A1

GENERAL INFORMATION:

APPLICANT: JENO GYURIS et al.

TITLE OF INVENTION: ENDOTHELIAL-CELL BINDING PEPTIDES FOR DIAGNOSIS AND THERAPY
CURRENT APPLICATION NUMBER: US/10/286,457

CURRENT FILING DATE: 2002-11-01

PRIOR APPLICATION NUMBER: 60/334822

PRIOR PRIOR FILING DATE: 2001-11-01

NUMBER OF SEQ ID NOS: 684

SOFTWARE: PALENTING DATE: 2001-11-01

NUMBER OF SEQ ID NOS: 684

SEQ ID NO 389

LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                 FEATURE:
; OTHER INFORMATION: Truncated analog of mouse leptin SEQ ID NO:12 US-10-698-510-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 28; DB 17; Length 8; Pred. No. 1.3e+06; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 28; DB 14; Length 9;
Pred. No. 1.38+06;
3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 42, Application US/10698510
Fublication No. US20050049193A1
GENERAL INFORMATION:
APPLICANT: Grasso, Patricia
APPLICANT: Lee, Daniel
APPLICANT: Lee, Daniel
APPLICANT: Leinung, Matthew
TITLE OF INVENTION: Leptin Related Peptides
FILE REFERENCE: 19705-001CIP
CURRENT PILING DATE: 2003-10-31
FRIOR APPLICATION NUMBER: US 60/422,723
PRIOR FILING DATE: 2002-10-31
PRIOR PEDLICATION NUMBER: US 09/377,081
PRIOR FILING DATE: 1999-08-19
NUMBER OF SEQ ID NOS: 42
SOFTWARE: PATENTIN VERSION 3.2
SEQ ID NO 41
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         56.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match
Best Local Similarity 71.*
---- 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 33...
35...
3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CSVPLTSVC 9
                                                                                                                                                                                                                                                                             ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ||:| ||
2 CSLPQTS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CSVPLTS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-698-510-42
                                                                                                                                                                                                                                                    TYPE: PRT
```

ò g

```
GENERAL INPORMATION:
APPLICANT: PERISE, JOSEPH S. M.
APPLICANT: PERISE, JOSEPH S. M.
APPLICANT: TUEN, KWOK YUNG
APPLICANT: GUNN, KWOK YUNG
APPLICANT: GUNN, KWOK HING
APPLICANT: GLAN, KWOK HING
APPLICANT: GLAN, KWOK HING
APPLICANT: MICHOLLS, JOHN
ITLE OF INVENTION: RESPIRATORY SYNDROME (SARS)
ITLE OF INVENTION: RESPIRATORY SYNDROME (SARS)
FILE REPERRICE: 19661.0078
CURRENT APPLICATION NUMBER: GO/457, 33
PRIOR FILING DATE: 2003-03-24
PRIOR PRILING DATE: 2003-04-02
PRIOR PRILING DATE: 2003-04-02
PRIOR FILING DATE: 2003-04-02
PRIOR FILING DATE: 2003-04-04
PRIOR FILING DATE: 2003-04-04
PRIOR FILING DATE: 2003-04-04
PRIOR FILING DATE: 2003-04-04
PRIOR FILING DATE: 2003-04-14
PRIOR PRICE 
                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                        ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 7;
                                                                                                                                                                                                                                 Length 9;
                                                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Human severe acute respiratory system virus
                                                                                                                                                                                                                           Score 26; DB 16;
Pred. No. 1.3e+06;
2; Mismatches 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50.0%; Score 25; DB 17;
80.0%; Pred. No. 1.3e+06;
iive 1; Mismatches 0
                                                          TYPE: PRT ORGANISM: Artificial sequence PETURE: PEATURE: OTHER INFORMATION: Synthetic peptide US-10-649-873-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1071, Application US/10808187
Publication No. US20050009009A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 480, Application US/10462452; Publication No. US20040037809A1; GENERAL INFORMATION:
                                                                                                                                                                                                                              Query Match
Best Local Similarity 44.4%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 50.0
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                    1 CTHPKASMC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 LTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-808-187-1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-808-187-1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-10-462-452-480
  SEQ ID NO 35
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: peptide with peptide binding sequence retrieved from phage biopar US-10-254-446A-147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 35, Application US/10649873

Publication No. US20040171552A1

GENERAL INFORMATION:

APPLICANT: Biokine Therapeutics Ltd.

APPLICANT: Bizenberg, Orly

APPLICANT: Vaisal-Ohayon, Dalit

TITLE OF INVENTION: NOVEL CHEMOKINE BINDING PEPTIDES CAPABLE OF MODULATING THE TITLE OF INVENTION: US/10/649,873

CURRENT APPLICATION NUMBER: US/10/649,873

CURRENT FILING DATE: 2003-08-28

NUMBER OF SEQ ID NOS: 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
TITLE OF INVENTION: Peptide Inhibitors of LFA-1/CAM-1 Interaction FILE REFERENCE: SCI200/4-1CIP CURRENT APPLICATION NUMBER: US/09/760,599 CURRENT FILING DATE: 2001-01-17 NUMBER OF SEQ ID NOS: 56 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Description of Artificial Sequence:Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 147, Application US/10254446A

Publication No. US20030113714A1

GENERAL INFORMATION:

APPLICANT: Belofer, Angela M

APPLICANT: Benalley, Richard E.

APPLICANT: Ryan, Esther

APPLICANT: Ryan, Esther

TITLE OF INVENTION: BIOLOGICAL CONTROL OF NANOPARTICLES

FILE REFERENCE: 119927-1066

CURRENT FILING DATE: 2003-02-19

PRIOR APPLICATION NUMBER: 60/325,664

PRIOR APPLICATION NUMBER: 60/325,664

PRIOR PLING DATE: 2001-09-28

NUMBER OF SEQ ID NOS: 245

SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52.0%; Score 26; DB 14; Length 9; 44.4%; Pred. No. 1.38+06; Live 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                    Score 26; DB 9; Length 9;
Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Mismatches
                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                       52.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT ORGANISM: artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 52.0
Best Local Similarity 44.4
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                            3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |:: : |:|
CALRMRSIC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CKLQLTNQC 9
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
US-10-254-446A-147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-10-649-873-35
                                                                                                                                                                                                                                                                                                                                                US-09-760-599-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 147
                                                                                                                                                                                                      LENGIH: 9
                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
```

```
Sequence 609, Application US/10601953
Publication No. US20040077540A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Compositions And Methods For Modulating Physiology Of Epithelial
TITLE OF INVENTION: Therapeutic Compounds
TITLE OF INVENTION: Therapeutic Compounds
TITLE FERRENCE: 02-03US
CURRENT APPLICATION NUMBER: US/10/601,953
CURRENT PILLING DATE: 2003-06-24
FRIOR PILLING DATE: 2002-06-28
NUMBER OF SEQ ID NOS: 900
SEQ ID NO 609
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
## APPLICANT: Quay, Steven
### APPLICANT: El Shafy, Mohammed Abd
### APPLICANT: Gupta, Malini
### APPLICANT: Gupta, Malini
### APPLICANT: Gupta, Malini
### APPLICANT: Gupta, Malini
### APPLICANT: Ge Meireles, Jorge
### TITLE OF INVENTION: Compositions and Methods for Enhanced
### TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
### FILE REFERENCE: 02-03
### CURRENT APPLICATION NUMBER: US/10/462,452
### CURRENT PILING DATE: 2003-06-16
### PRIOR APPLICATION NUMBER: 60/393,066
### PRIOR APPLICATION NUMBER: 60/393,066
### PRIOR APPLICATION NUMBER: 05/206-16
### PRIOR APPLICATION NUMBER: 06/393,066
### PRIOR APPLICATION NUMBER: 06/393,066
### PRIOR APPLICATION NUMBER: 06/393,066
### PLENGTH: 08 OF IN MINGOWS Version 4.0
### SEQ ID NO 480
### ITYPE: PRT
### CANTER OF THE OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50.0%; Score 25; DB 15; Length 8; 66.7%; Pred. No. 1.34+06; tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50.0%; Score 25; DB 15; Length 8; 66.7%; Pred. No. 1.3e+06; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Synthetic construct US-10-601-953-609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 50.0
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |:| ||
PVTPVC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 PLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 PLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
US-10-601-953-609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

Search completed: April 1, 2005, 11:34:31 Job time : 67 secs

1 PVTPVC 6

g

THIS PAGE BLANK (uspto)

142, App 144, App 147, App 147, App 61, App 148, App 147, App 148, App 148, App 148, App 3, Appli 3, Appli 3, Appli 3, Appli 3, Appli

```
Sequence Sequence Sequence
                                                                                                                                                                                                                                                                                                                                  Sequence
Sequence
Sequence
                                                                                                                                                                                                                                         Sequence
                                                    Sequence
Sequence
Sequence
                                                                                                                          Sequence
Sequence
                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Kay, B. K.
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEGURNCES: 186
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49.2%; Score 30; DB 1; Length 8; 62.5%; Pred. No. 4.1e+05; ive 1; Mismatches 2; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
CUNTY: New York
COMPUTRY: U.S.A.
ZIP: 10036-2711
COMPUTRY: U.S.A.
ZIP: 10036-2711
COMPUTER: READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
REPLICATION NUMBER: US/08/189,331
FILING DATE: Concurrently herewith
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
REFERENCE/DOCKET NUMBER: 1101-155
TELLEPHONE: 212 789-9090
TELLEPHONE: 212 789-9090
TELLEPHONE: 212 789-9090
TELLEPHONE: 212 789-8864/9741
TELLEPHONE: 212 789-8864/9741
TELLEPHONE: 212 789-8864/9741
TELLEPHONE: SEQ ID NO: 150:
SEQUENTERING SCORE INFORMATICS:
LENGTH: B amino acids
LENGTH: AND ACTERISTICS:
LENGT
US-08-340-283-154
US-09-601-729-204
US-08-816-078A-187
US-08-313-313-31
US-08-549-008-42
US-08-549-008-42
US-08-671-089-13
US-08-802-981-142
US-08-802-981-144
US-08-189-331-147
US-08-189-331-148
US-08-471-068-148
US-08-471-068-148
US-08-471-068-148
US-08-471-068-148
US-08-441-33
US-08-467-083-3
US-08-446-3458-3
US-08-446-3458-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 150, Application US/08189331
Patent No. 5747334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 5; Conserval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CVSAPQTS
       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-189-331-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-189-331-150
       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 149, Appl
Sequence 149, Appl
Sequence 149, Appl
Sequence 143, Appl
Sequence 1, Appl
Sequence 1, Appl
Sequence 26, Appl
Sequence 26, Appl
Sequence 108, Appl
Sequence 12, Appl
Sequence 12, Appl
Sequence 5, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 12, Appl
Sequence 5, Appli
Sequence 31, Appl
Sequence 30, Appl
Patent No. 5190920
Patent No. 5506208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. 5190920
Patent No. 5506208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                         (without alignments)
19.096 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                      April 1, 2005, 11:06:10 ; Search time 43 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCOMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
                               GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-189-331-150
US-08-471-068-150
US-08-212-190A-5
US-08-200-321-5
US-08-3610-5
US-08-189-331-149
US-08-189-331-149
US-08-436-469-5
US-08-189-331-149
US-08-3131-383-33
US-08-3131-383-33
US-08-3131-383-33
US-08-362-398-1
US-08-483-072-26
US-08-483-072-26
US-08-483-072-26
US-08-483-072-26
US-08-482-228-108
US-08-482-228-108
US-08-482-528-108
US-08-482-528-108
US-09-671-089-12
US-09-671-089-12
US-09-671-089-12
US-09-843-434A-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-438-150-1
                                                                                                                                                                                                                                                                                                                                                                                                                           513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                        protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Issued Patents AA:*
                                                                                                                                                                                                                                                            US-09-761-636A-7
61
1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0 Maximum DB seq length: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \begin{matrix} & 0.000\\ & 0.000\\ & 0.000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0000\\ & 0.0
                                                                                                                        OM protein -
                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
```

ö

Gaps

```
| Sequence 5, Application US/08900321
| Patent No. 5981712
| APPLICANT Nohn, Elise C. | APPLICANT Kohn, Elise C. | APPLICANT Kohn, Elise C. | APPLICANT Kim, Young S. | TITLE OF INVENTION: UNA Encoding CAI Resistance Proteins and TITLE OF INVENTION: UNA Encoding CAI Resistance Proteins and TITLE OF INVENTION: UNA Encoding CAI Resistance Proteins and TITLE OF INVENTION: Uses Thereof NUMBER OF SEQUENCES: 10 | NUMBER OF SEQUENCES: 10 | ADDRESSEE: Two Membracadero Center, Eighth Floor CITY: San Francisco CITY: San Francisco Conter, Eighth Floor | CONTENTION CAINTENT CALIFORNIA | CALIFORNIA CANADAR CANADA CONTENT CALIFORNIA CONTENT CANADA CANAD
      MEDIUM TYPE: Flory disk

COMPUTER: INP PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/212,190A
FILLING DATE: 14-MR-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HUNTER, TOW
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 15280-204US
REFERENCE/DOCKET NUMBER: DHHS Ref. No. 5652223 E-112-94/0
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
FORWARI CHARACTERISTICS:
FORWARI CHARACTERISTICS:
FORWARI CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 27; DB 1; Length 10;
Pred. No. 2.3e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: San Prancisco STATE: California COUNTRY: USA ZIPE: California COUNTRY: USA ZIP: Galifornia COUNTRY: USA ZIP: Galifornia COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PAPELICATION DATA: APPLICATION NUMBER: US/08/900,321 FLING DATE: 25-JUL-1997 CLASSIFICATION: 530 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/212,190 FLING DATE: 14-MAR-1994 ATTORNEY/AGBNT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hunter, Tom REGISTRATION NUMBER: 38,498
REFERENCE DOCKET NUMBER: 015280-204100US
TELECOMMUNICATION INPORMATION:
TELEPHONE: (415)_576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.3%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 VPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 VPPAPVPC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-212-190A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-900-321-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5, Application US/08212190A
Patent No. 565223
GENERAL INFORMATION:
APPLICANT: KOHN, Elise C.
APPLICANT: LIOTTA, Lance A.
APPLICANT: KIM, Young Sook
TITLE OF INVENTION: USES THEREOF
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
                                                        Sequence 150, Application US/08471068
Patent No. 5948635
GENERAL INFORMATION:
APPLICANT: Kay, B. K.
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES: 186
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .le+05;
-- 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PARENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Townsend and Townsend and Crew STREET: Steuart Street Tower, One Market Plaza STRTE: San Francisco STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 30; DB
Pred. No. 4.1e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA;
PRIOR APPLICATION DATA;
APPLICATION NUMBER: 08/189,331
FILLING DATE: ATTORNATION:
NAME: MASTOCK, S. Leslie
REGISTRATION NUMBER: 18,72
REFERENCE/DOCKET NUMBER: 1101-155
TELEPHONE: 212 790-9090
TELEPHONE: 212 869-8864/9741
FELERATION FOR SEQ ID NO: 150:
INFORMATION FOR SEQ ID NO: 150:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 62.5
Best Local Similarity 51.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                         New York
: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVSAPQTS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94105-1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino a STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
RESULT 2
US-08-471-068-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-471-068-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
US-08-212-190A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

ö

Gaps

ö

```
Sequence 5, Application PC/TUS9503610 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 10 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5; Conservative
                                                                                                                                     TITLE OF INVENTION: DNA TITLE OF INVENTION: USER NUMBER OF SEQUENCES: 10 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 VPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 VPPAPVPC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT
; ORGANISM: Rat
US-08-769-745-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT-US95-03610-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-769-745-15
                                                            PCT-US95-03610-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                     ö
                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Kohn, Elise C.
Liotta, Lance A.
Kim, Young S.
TITLE OF INVENTION: DNA Encoding CAI Resistance Proteins and Uses Thereof
                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/436,469
FILING DATE: 08-No. 6790386-1999
CLASSIFICATION: CUNKNOWN>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/900,321
FILING DATE: 28-JUL-1997
FILING DATE: 14-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 10;
                                                                                                                                                            Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 44.3%; Score 27; DB 4; Length 10; Best Local Similarity 62.5%; Pred. No. 2.3e+02; Matches 5; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 015280-204100US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                          Score 27; DB 2; I
Pred. No. 2.3e+02;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 5, Application US/09436469
; Patent No. 6790936
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                            44.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: San Francisco
STATE: California
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                        Query Match
Best Local Similarity 62.5
Matches 5; Conservative
                                                                          TOPOLOGY: linear

MOLECULE TYPE: peptide
US-08-900-321-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
                                                                                                                                                                                                                                         4 VPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 VPLTSVPC 11
                                       TYPE: amino acid STRANDEDNESS:
                                                                                                                                                                                                                                                                                1 VPPAPVPC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VPPAPVPC 8
                                                                                                                                                                                                                                                                                                                                                               US-09-436-469-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-436-469-5
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
DNA ENCODING CAI RESISTANCE PROTEINS AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 15, Application US/08769745

Patent No. 595529

GENERAL INFORMATION:
APPLICANT: Holmes, Todd C.
APPLICANT: Levitan, Irwin B.
APPLICANT: Brandeis University
TITLE OF INVENTION: Mechanism for the Regulation of Ion
TITLE OF INVENTION: Channel Activity
FILE REFERENCE: BRU096-02
CURRENT APPLICATION NUMBER: US/08/769,745
CURRENT FILING DATE: 1996-12-19
NUMBER OF SEQ ID NOS: 41
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44.3%; Score 27; DB 5; Length 10; 62.5%; Pred. No. 2.38+02; ive 0; Mismatches 3; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42.6%; Score 26; DB 2; Length 6; 83.3%; Pred. No. 4.1e+05; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:

PRIOR APPLICATION NUMBER: US 08/212,190
FILING DATE: 14-MAR-1994
ATTORNEY/ACENT INFORMATION:
NAME: Weber, Kenneth A.
REGISTRATION NUMBER: 31,677
REFERENCE/DOCKET NUMBER: 15280-204000PC
REFERENCE/DOCKET NUMBER: DHHS Ref. No. E-112-94/0
TELECOMMUNICATION INFORMATION:
TELEPRAX: (415) 543-5040
TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO. 5:
SEQUENCE CHARACTERISTICS:
                                COMPUTE: Floppy disk
COMPUTE: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/03610
FILING DATE: 14-MAR-1995
CLASSIFICATION:
```

```
Sequence 33, Application US/08331383
Sequence 33, Application US/08331383
Sequence 33, Application US/08331383
Sequence 33, Application US/08331383
Sequence 35, Applications
GENERAL INFORMATION:
APPLICANT: Komoritya, Akira
APPLICANT: Rompositions for the Detection of
TITLE OF INVENTION: Proteases in Biological Samples and Methods and Use
TITLE OF INVENTION: Thereof
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSER: Townsend and Townsend Khourie and Crew
STREET: One Market Plaza, Steuart Tower, Suite 2000
CITY: San Francisco
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: TBM PC compatible
OPPRATIS: TBM PC COMPATIBLE
OPPRATIS: PC-DOS/MS-DOS
SOFTWARE: PATENTIN PATA:
RPPLICATION DATA:
FILING DATE: 28-OCT-1994
CLASSIFICATION: 424-1994
           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       42.6%; Score 26; DB 2;
57.1%; Pred. No. 4.1e+05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Mismatches
                                                                                                                                        CLUSSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
PILLING DATE:
PILLING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18 872
REFERENCE/DOCKET NUMBER: 1101-155
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 790-9090
TELEPHONE: 212 790-9090
TELEPHONE: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 149:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                            1101-155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Dow, Karen B.
REGISTRATION INDMERS: 29,684
REPERENCE/DOCKET NUMBER: 1686;
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-326-2420
INFORMATION FOR SEQ ID NO: 33:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |:| | |
CVSAPQT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPLT 7
MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-471-068-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-331-383-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 149, Application US/08471068
Patent No. 5948635
GENERAL INFORMATION:
APPLICANT: ROWIKES, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SEQUENCES: 186
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                     APPLICANT: Kay, B. K.
APPLICANT: Fowlkes, D. M.
TITLE OF INVENTION: Totally Synthetic Affinity Reagents
NUMBER OF SECURICES: 186
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42.6%; Score 26; DB 1; Length 8; 57.1%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                   COURRESPONDERS:
ADDRESSE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036-2711
COMPUTER: ELADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ELADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ELADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ELADABLE FORM:
MEDIUM TYPE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/08/189,331
FILING DATE: CONCURTENTLY herewith
CLASSIFICATION NUMBER: 18,872
ATTORNEY/AGENT INFORMATION:
NAMME: MASOCK, S. Leslie
REGISTRATION NUMBER: 18,872
REDERRENCE/DOCKET NUMBER: 1101-155
TELEPHONE: 212 790-9090
TELEFRAX: 212 869-8864/9741
TELEX: 66141 PENNIE
TELESTX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 149:
SEQUENCE CHARACTERISTICS:
FRANCTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                               Sequence 149, Application US/08189331 Patent No. 5747334 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SS: single
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: unknown
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New York
RY: U.S.A.
10036-2711
  PLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CVSAPOT 8
                                           1 PLTPVP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-471-068-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-189-331-149
                                                                                                                                      JS-08-189-331-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Ne
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                         d
```

us-09-761-636a-7.closed.rai

```
COMPUTER: IBM PS/2
OPERATING SYSTEM: DOS 5
SOFTWARE: Microsoft word for Windows
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/360,239B
                                                                                                                                                                                                                                           ZIP: 94111-3834
COMPUTER READABLE FORM:
CMPUTER: Floppy disk
CMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application US/08360239B Patent No. 5801222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 41.8
Best Local Similarity 44.4
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 amino acida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 SVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 AIPM-SIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         85258-1234
                   GENERAL INFORMATION:
 Patent No. 6037137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-802-981-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-360-239B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                         Sequence 43, Application US/08549008
Patent No. 5714342
GENERAL INFORMATION:
APPLICANT: Komoriya, Akira
TITLE OF INVENTION: Compositions for the Detection of
TITLE OF INVENTION: Protease in Biological Samples and Methods of Use Thereof
                                                                                                                                                                        1;
                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ï
                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 25.5; DB 1; Length 9;
Pred. No. 4.1e+05;
4; Mismatches 0; Indels
                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/549,008
FILING DATE: 27-OCT-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/331,383
FILING DATE: 28-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen Lauver
REGISTRACION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 016865-000110US
TELECOMMUNICATION INFORMATION:
                                                                                                                              Score 25.5; DB 1;
Pred. No. 4.1e+05;
4; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 143, Application US/08802981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 43:
                                                                                                                              Query Match
Best Local Similarity 44.4%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
LENGTH: 9 amino acids
                 TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                            3 SVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SVPLTSVPC 11
                                                                                                                                                                                                                                               2 AIPM-SIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ::|: |:||
AIPM-SIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-08-802-981-143
                                                                                         US-08-331-383-33
                                                                                                                                                                                                                                                                                                       RESULT 11
US-08-549-008-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-549-008-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
```

```
APPLICANT: Romoriya, Akira
APPLICANT: Romoriya, Akira
APPLICANT: Packard, Beverly S.
TITLE OF UNIVERNITON: Compositions for the Detection of Enzyme
TITLE OF INVENTION: Activity in Biological Samples and Methods of Use Thereof
NUMBER OF SEQUENCES: 231
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townseend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Pettit, George R.
APPLICANT: Pattit, George R.
APPLICANT: Pattit, George R.
APPLICANT: Pettit,
APPLICANT: Pan, Kul
TITLE OF INVENTION: Ithe Human Cancer Cell Growth Inhibitory Cyclic
TITLE OF INVENTION: Octapeptides Phakellistatin 10 and 11
NUMBER OF SEQUENCES:
ADDRESSEE: Richard R. Mybeck
STREET: BALO East Morgan Trail, #10
CITY: Scottsdale
STATE: Arizona
CONNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 25.5; DB 3; Length 9;
Pred. No. 4.1e+05;
4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/802,981
FILING DATE: 20-FEB-1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HUNGEY, TOM
REGISTRATION NUMBER: 38,498
REPERENCE/DOCKET NUMBER: 016865-000300US
TELEPHONE: (415) 576-0300
INFORMATION FOR SEQ ID NO: 143:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb
```

0

Gaps

; 0

```
APPLICANT: Arabation:
APPLICANT: Tempczyk, Anna
APPLICANT: Tempczyk, Anna
APPLICANT: Tempczyk, Anna
APPLICANT: Zheng, Mariano J.
APPLICANT: Zheng, Zhong-Li
APPLICANT: Zheng, Zhong-Li
TITLE OF INVENTION: Cyclic CS-1 Peptidomimetics,
TITLE OF INVENTION: Compositions and Methods of Using Same
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                       41.0%; Score 25; DB 2; Length 10;
44.4%; Pred. No. 4.7e+02;
tive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "The carboxy-terminus is a carboxamide."
                                                                                                                                                                                                                                                                                                                                                             /note= "The carboxy-terminus is a
carboxamide."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/519,109B
FILING DATE: 25-AUG-1995
CLASSIFICATION: 514
REFERENCE/DOCKET NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-CY 1647
TELECOMMUNICATION INPORMATION:
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TOPPLOGY: linear
MOLECULE TUDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-CY 1795
TELEPROMUNICATION INFORMATION:
TELEPRX: (619) 535-9001
TELEPRX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 26, Application US/08519109B Patent No. 5869448 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 44.4%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 4370 La Jolla V
CITY: San Diego
STATE: California
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide FEATURE:
                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: Peptide
LOCATION: 10
OTHER INFORMATION: OTHER INFORMATION: 0
                                                                                                                                                                                                                                                                                                           NAME/KEY: Peptide
COCATION: 10
OTHER INFORMATION:
OTHER INFORMATION:
US-08-483-077C-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 LDVPILDVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 10 amino
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-519-109B-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: SPECTEAL MS/NS techniques

CTHER INFORMATION: Phakellistatin 10 is a

CTHER INFORMATION: cell growth inhibitory peptide with

CTHER INFORMATION: activity in murine lymphocytic leukemia

CTHER INFORMATION: cell line of 2.1 mg/ml.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 26, Application US/08483077C
Patent No. 5811391
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Archenius, Thomas S.
APPLICANT: Tempczyk, Anna
APPLICANT: Elices, Mariano J.
APPLICANT: Zhong-Li
TITLE OF INVENTION: Cyclic CS-1 Peptidomimetics,
TITLE OF INVENTION: Compositions and Methods of Using Same
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41.0%; Score 25; DB 1; Length 8; 66.7%; Pred. No. 4.1e+05; tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,077C
FILING DATE: 07-JUN-1995
CLASSIFICATION: 51
ATTORNEY/AGENT INPORMATION:
NAME: Campbell, Cathryn A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid analysis, high resolution
nuclear magnetic resonance and mass
spectral MS/MS techniques
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Phakellia sp.
DEVELOPMENTAL STAGE: whole organism
                                                      ATTORNEY/AGENT INFORMATION:
NAME: Richard R. Mybeck
REGISTRATION NUMBER: 17,886
REGISTRATION NUMBER: 17,886
REGISTRATION NUMBER: 4997
TELECOMMUNICATION INFORMATION:
TELEFRA: (602)-483-1285
TELEFRA: (602)-483-1285
TELEFRA: (602)-483-1285
TELEFRA: (602)-483-1285
TELEFRA: 80010 NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 mmino acid residues
TYPE: amino acid residues
TYPE: amino acid residues
TYPE: ACCOUNT CYCLIC
                                                                                                                                                                                                                                                                                                                                                                                      DESCRIPTION: Cyclooctapeptide
DESCRIPTION: phakellistatin 10
PPOTHETICAL: no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: Phakellistatin 10
NAME/KEY: amino acid analys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        circular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 PLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                        HYPOTHETICAL: no
ANTI-SENSE: no
FRAGMENT TYPE: ci
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||| :|
1 PLTPIP 6
                        FILING DATE: 12 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-08-483-077C-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

US-08-519-109B-26

```
Query Match
Best Local Similarity 44.4%; Pred. No. 4.7e+02;
Matches 4; Conservative 2; Mismatches 3; Indels
Qy 2 ISVPLTSVP 10

Db 2 LDVFILDVP 10

Search Completed: April 1, 2005, 11:13:03
Job time: 43 secs
```

ö

0; Gaps

THIS PAGE BLANK (USPTO)

```
dnaA protein - Pse
Ig heavy chain CRD
dihydrofolate redu
DNA topoisomerase
Ig H chain V-D-J r
catch-relaxing pep
endoglycosylcerami
nitrate reductase
T-cell receptor be
acylase - Kluyvera
lectin - potato (f
gene Cftr protein
major postsynepic
granulocyte-colony
                           R-phycoerythrin al
A32039
B22565
B34835
PT0280
148105
148086
PH1602
ECMUCR
B39745
S68802
                                                                                                                                                                                                                                                               PT0530
S19288
S21288
IS7018
A42689
  0000000000000000000
0.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.0
```

April 1, 2005, 11:19:07 ; Search time 11.5 Seconds (without alignments) 75.300 Million cell updates/sec GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on:

BLOSUM62 Gapop 10.0 , Gapext 0.5 US-09-761-636A-10 50 1 CSVPLTSVC 9 Title: Perfect score: Scoring table: Sequence:

residues	
96216763	
seds,	
283416	
Searched:	

parameters:	
chosen	
satisfying	0
hits	length
r of	969
:aqui	DB
1 m	mnu
Tota	Mini

Maximum DB seq length: 9

791

summaries

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	205K exoantigen -	Ig heavy chain CRD	118K stomach cance	glycogen phosphory	MHC H2-L antigen -	T-cell receptor be	T-cell receptor al	major protein anti	T-cell receptor ga		neutral proteinase	seminal vesicle pr	orf dowstream to b	sperm-activating p	laminin B1 - weste	Na+/K+-exchanging	formylglycinamide	aggrecan - bovine	metallothionein is	unidentified 6.5/3	Ig heavy chain CRD	hypothetical colla	seed protein ws-5	enamelin f - bovin	alcohol dehydrogen
SUMMAKIES	ΩI	G33098	PT0247	A60356	A60521	I65546	PH0932	PH0803	E60274	F41946	A42057	A35180	152974	B41983	A60522	149421	S29881	A12016	S42620	859622	PQ0701	PT0268	A35039	E61491	S10783	S71919
	Length DB	8 2	6	9	2	9	7 2	8	2	6	8	8 7	9 2	9	9	6 2	9	7 2	7 2	8	8	6	9	7 2	8	8
* Ouery	ا ہے :	34.0	32.0	32.0	3.0 . 0	30.0	30.0	30.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	24.0	24.0	24.0	24.0
	Score	17	16	16	15	15	15	15	14	14	14	14	14	14	14	13	13	13	13	13	13	13	12	12	12	12
Result	No.	7	8	m	4	ß	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

	205K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)	C;Species: Plasmodium falciparum	C,Date: 24-Aug-1990 #sequence_revision 24-Aug-1990 #text_change 09-Jun-	ssion: G33098	ls, J.H.; Hager, L.P.	submitted to the Protein Sequence Database, May 1990	A; Reference number: A33098	sion: G33098	A;Status: preliminary	A;Molecule type: protein	A,Residues: 1-8 <nic></nic>		Best Local Similarity 66.7%; Pred. No. 2.8e+05;
RESULT 1 G33098	205K exoantige	C;Species: Pla	C;Date: 24-Aug	C; Accession: G33098	R;Nichols, J.H	submitted to t	A;Reference nu	A; Accession: G33098	A;Status: prel	A; Molecule typ	A;Residues: 1-	Ouery Match	Best Local S

_change 09-Jun-2000

ALIGNMENTS

	0; Gaps
; Length 8;	2; Indels
34.0%; Score 17; DB 2; Length 8; 66.7%; Pred. No. 2.8e+05;	0; Mismatches
34.0%;	ative
Similarity	l, Conserv
Query Match 34.0% Best Local Similarity 66.7%	Matches

ö

œ 3 VPLTSV VPLXLV ~ 8

	•			SUMMARIES		δ	3 VPLTSV 8
sault No.	ou Ou Score Ma	o Query Match Length DB		ΙD	Description	qq	2 VPLXLV 7
			1 1 1 1 1 1				
7	17 3	4.0 8	7	G33098	205K exoantigen -	RESULT 2	
7	16 3	32.0 9	2 P	PT0247	Ig heavy chain CRD	PT0247	
٣		32.0 9	2 A	A60356	118K stomach cance	Ig heavy	Ig heavy chain CRD3 region (clone 2-106A) - human (fragment)
4	15 3	30.0	2 A	A60521	glycogen phosphory	C;Species	C;Species: Homo sapiens (man)
Ŋ		30.0	2	I65546	MHC H2-L antigen -	C;Date: 3	C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text_change 16-Aug-1996
9		30.0	2 P	PH0932	T-cell receptor be	C;Accessi	C; Accession: PT0247
7	15 3	30.0	2 P	PH0803	T-cell receptor al	R; Yamada,	R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
œ	14 2	28.0 5	7	E60274	major protein anti	J. Exp. M	J. Exp. Med. 173, 395-407, 1991
σ	14 2	0	2	F41946	T-cell receptor ga	A;Title:	A, Title: Preferential utilization of specific immunoglobulin heavy chain diversity and jo
10	14 2	28.0 8	2 A	A42057	fibroblast growth	A;Referen	ce number: PT0222; MUID:91108337; PMID:1899102
11	14 2	28.0 8	2 A	A35180	neutral proteinase	A;Accessi	A;Accession: PT0247
12	14 2		2 1	152974	seminal vesicle pr	A;Molecul	A;Molecule type: DNA
13	14 2		2 B	B41983	orf dowstream to b	A;Residue	A;Residues: 1-9 <yam></yam>
14	14 2	28.0 9	2 A	A60522	sperm-activating p	A; Experim	A; Experimental source: B lymphocyte
15	13 2	26.0 6	2 I	149421	laminin B1 - weste	C, Keyword	C, Keywords: heterotetramer; immunoglobulin
16	13 2	26.0 6	2	S29881	Na+/K+-exchanging		
17	13 2	26.0 7	2 A	A12016	formylglycinamide	Query M	Query Match 32.0%; Score 16; DB 2; Length 9;
18		26.0 7	2	S42620	aggrecan - bovine	Best Lo	
19	13 2	26.0 8	2	859622	metallothionein is	Matches	3; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
20		8 0.9	2	PQ0701	unidentified 6.5/3		
21	13 2	26.0 9	м	PT0268	Ig heavy chain CRD	ò	2 SVPLTS 7
22		24.0 6	4 A	A35039	hypothetical colla		
23	12 2	24.0 7	2 E	E61491	seed protein ws-5	d d	2 SAPIDS 7
24		24.0 8	2	S10783	enamelin f - bovin		
25	12 2	24.0 8	2	S71919	alcohol dehydrogen		
56	12 2	24.0 9	2	S13636	coat protein beta	RESULT 3	
27		24.0 9	2	S70334	endosperm protein,	A60356	
28		24.0 9	7	G58502	kidney and bladder	118K stom	118K stomach cancer antigen – human (fragment)
59	11 2	22.0 4	2 I	54357	schwannomin - mous	C;Species	C;Species: Homo sapiens (man)

ö

ે 유

```
C;Species: Rattus norvegicus (Norway rat)
C;Accession: PH0912 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Accession: PH0912
R;Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A;Title: Analysis of T cell receptor beta chains in Lewis rats with experimental allergic A;Reference number: PH0891; MUID:92078857; PMID:1836012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R,Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L.
J. Exp. Med. 174, 1371-1383, 1991
A,Title: T cell receptor genes in a series of class I major histocompatibility complex-realledic exclusion and antigen-specific repertoire.
A,Reference number: PHO746; MuID:92078846; PMID:1836010
A,Accession: PH0803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   major protein antigen MPT63 - Mycobacterium tuberculosis (fragment)
C;Species: Mycobacterium tuberculosis
C;Date: 11-Dec-1992 #sequence_revision 11-Dec-1992 #text_change 30-Sep-1993
C;Accession: E60274
R;Nagai, S.; Wiker, H.G.; Harboe, M.; Kinomoto, M.
R;Nagai, S.; Wiker, B.; 372-382, 1991
A;Title: Isolation and partial characterization of major protein antigens in the culture A;Reference number: A60274; MUID:91099989; PMID:1898899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T-cell receptor alpha chain (J2) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PH0803
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                            A;Residues: 1-7 <GOL>
A;Experimental source: complete Freund's adjuvant-immunized lymph node
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0

    rat (fragment)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 14; DB 2; Length 5; Pred. No. 2.8e+05; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                             Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 8;
                                                                                                                                                                                                                                                                                                                                                                          Score 15; DB 2; I
Pred. No. 2.8e+05;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30.0%; Score 15; DB 2;
33.3%; Pred. No. 2.8e+05;
                                 receptor beta chain V-D-J region (clone 3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-8 <CAS>
A;Cross-references: EMBL;X60912
A;Experimental source: T lymphocyte
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28.0%;
                                                                                                                                                                                                                                                                                                                                                                          30.0%;
ilarity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A, Status: preliminary
A, Molecule type: protein
A, Residues: 1-5 < NAG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
nes 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
hes 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CSVPLT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAGIT 6
                                                                                                                                                                                                                                                          A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CASP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Accession: E60274
                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999
C;Accession: 165546
B;Kimura, A.; Israel, A.; Le Bail, O.; Kourilsky, P.
C=11 44, 261-272, 1986
A;Title: Detailed analysis of the mouse H-2Kb promoter: Enhancer-like sequences and theil A;Reference number: 152778; MUID:86106202; PMID:3510743
A;Accession: 165546
                                                                                                      Įц
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Bonamusa, L.; Baanante, I.V.
Comp. Biochem. Physiol. B 95, 295-301, 1990
A;Title: Purification and characterization of glycogen phosphorylase B from skeletal mus
A;Reference number: A60521; MUID:90227907; PMID:2109669
A;Accession: A60521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: protein
A;Residues: 1-5. + SBON>
C;Keywords: glycosyltransferase; hexosyltransferase; phosphoprotein
F;3/Binding site: phosphate (Ser) (covalent) (by phosphorylase b kinase) #status experim
                                           Int. J. Cancer 45, 783-787, 1990
A.Title: Western blotting analysis for malignant lymphoma and stomach cancer antigens fareference number: A60356; MUID:90216080; PMID:2323853
A.Accession: A60356
A.Molecule type: protein
A.Residues: 19 < SHI>
A.Cross-references: UNIPROT:Q7M4R6
C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  glycogen phosphorylase (EC 2.4.1.1), muscle - mullet (Liza ramada) (fragment) N;Alternate names: glycogen phosphorylase b C;Species: Liza ramada C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004 C;Accession: A60521
R;Bonamusa, L.; Baanante, I.V.
Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A, Cross-references: GB:M12483; NID:g199565; PIDN:AAA39663.1; PID:g554234
                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30.0%; Score 15; DB 2; Length 6; 75.0%; Pred. No. 2.8e+05; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                     Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 15; DB 2; Le
Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                              Score 16; DB 2;
Pred. No. 2.8e+05;
1; Mismatches 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-6 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30.0%; Scor.
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MHC H2-L antigen - mouse (fragment)
                                                                                                                                                                                                                                                                                                32.0%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                       Best_Local Similarity
Matches 3; Conser
                                                                                                                                                                                                                                                                                                                                                                                                 3 VPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                               IPLKPV 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 SVP 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 VPLT
                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
```

ò g

ö

. 0

셤

```
C. Accession: A60522
R.Yoshino, K.I.; Kurita, M.; Yamaguchi, M.; Nomura, K.; Takao, T.; Shimonishi, Y.; Suzuki Comp. Biochem. Physiol. B 95, 423-429, 1990
A.Title: A species-specific sperm-activating peptide from the egg jelly of the sea urchir A; Reference number: A60522; MUID:90227916; PMID:2158412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:P25825; GB:M83692; NID:g142297; PIDN:AAA22122.1; PID:g142299 A;Note: sequence extracted from NCBI backbone (NCBIP:88442)
                                                                                                                                                                                                                                                                                                                                                        S1 nuclease-sensitive sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C,Accession: B41983

R,Grossman, M.J.; Hinton, S.M.; Minak-Bernero, V.; Slaughter, C.; Stiefel, E.I. Proc. Natl. Acad. Sci. U.S.A. 89, 2419-2423, 1992
A,Title: Unification of the ferritin family of proteins.
A,Reference number: A41983; MUID:92196129; PMID:1549605
A,Accession: B41983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                             C;Species: Rattue norvegicus (Norway rat)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999
C;Accession: 152974
R;Teng, C.T.; Harris, S.E.
B;DNA 2, 105-111, 1983
A;Title: The seminal vesicle secretion IV gene: detection of S1 nuclease-ser A;Reference number: 152974; MUID:83261204; PMID:6307619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sperm-activating peptide SAP-IV - sea urchin (Diadema setosum)
C;Species: Diadema setosum
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:MZ7324; NID:g207124; PIDN:AAA63501.1; PID:g207125 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         orf dowstream to bacterioferritin - Azotobacter vinelandii (fragment)
C;Species: Azotobacter vinelandii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; not compared with conceptual translation A;Molecule type: nucleic acid; protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 14; DB 2; Length 9;
Pred. No. 2.8e+05;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28.0%; Score 14; DB 2; Length 9; 75.0%; Pred. No. 2.8e+05; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                              A;Accession: 152974
$\text{Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-9 <RES>
                                                                                                                                                                                           seminal vesicle protein IV - rat (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Cross-references: UNIPROT: Q7M4D5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 28.0%;
Best Local Similarity 75.0%;
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: protein A; Residues: 1-9 < YOS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <GRO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5 LTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 PRTS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: A60522
PLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 1-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Gene: SVSIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A60522
  ò
                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Aug-1990 #sequence_revision 10-Aug-1990 #text_change 09-Jul-2004
C;Accession: A35180
R;Yoshihara, Y.; Ueda, H.; Fujii, N.; Shide, A.; Yajima, H.; Satoh, M.
R;Yoshihara, Y.; Ueda, H.; Fujii, N.; Shide, A.; Yajima, H.; Satoh, M.
A;Title: Chem. 265; S809-5815, 1990
A;Title: Purification of a novel type of calcium-activated neutral protesse from rat bra A;Reference number: A35180; MUID:90202830; PMID:2318836
                                                                                                                                                                                                                                                  ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fibroblast growth factor receptor 1, secreted - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 07-May-1999
C;Accession: A42057
R;Werner, S.; Duan, D.S.R.; de Vries, C.; Peters, K.G.; Johnson, D.E.; Williams, L.T.
M)-. Cell. Biol. 12, 82-88, 1992
A;Title: Differential splicing in the extracellular region of fibroblast growth factor A;Reference number: A42057; MUID:92107200; PMID:1309595
                                                                                                   C; Species: Mus musculus (house mouse)
C; Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999
C; Accession: F41946
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein, J.R. Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor gamma & A; Reference number: A41946; MUID:92049316; PMID:1658619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
A35180
neutral proteinase (EC 3.4.-.-), calcium-activated - rat (fragment)
                                                                                                                                                                                                                                                                                                                         A, Status: preliminary; not compared with conceptual translation A; Molecule type: DNA A; Molecule type: DNA A; Residues: 1-6 <WHE> C; Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 14; DB 2; Length 6; Pred. No. 2.8e+05; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.0%; Score 14; DB 2; Length 8; 75.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 8;
                                                                               - mouse (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28.0%; Score 14; DB 2; L
80.0%; Pred. No. 2.8e+05;
iive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Mismatches
                                                                            receptor gamma chain (1a.27)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-8 «WER>
A;Cross-references: GB:M80363
C;Keywords: growth factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cross-references: UNIPROT: Q7M039
                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 28.0
Best Local Similarity 75.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: protein A; Residues: 1-8 <YOS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 VPLTS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLLTS 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Keywords: hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAV 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSV 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: A35180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                  T-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
ö
                                                                                         Gaps
                                                                                        .;
0
                                                 Query Match 28.0%; Score 14; DB 2; Length 9; Best Local Similarity 66.7%; Pred. No. 2.8e+05; Matches 2; Conservative 1; Mismatches 0; Indels
C.Superfamily: unassigned animal peptides F;2-9/Disulfide bonds: #status experimental
                                                                                                                  7 SVC 9
                                                                                                                                       :||
7 AVC 9
                                                                                                                     ò
                                                                                                                                                Dp
```

RESULT 15
149421
1349421
C;Species: Mus spretus (western wild mouse)
C;Species: Mus spretus (western wild mouse)
C;Dete: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 05-Nov-1999
C;Accession: 149421
C;Accession: 149421
A;Ritle: Genetic mapping of 40 cDNA clones on the mouse genome by PCR.
A;Reference number: 148934; MuID:94319082; PMID:8043949
A;Accession: 149421
A;Accession: 149441
A;Accessio

Gaps ; 0 Query Match 26.0%; Score 13; DB 2; Length 6; Best Local Similarity 66.7%; Pred. No. 2.8e+05; Matches 2; Conservative 0; Mismatches 1; Indels

; 0

7 SVC 9

Search completed: April 1, 2005, 11:25:15 Job time : 12.5 secs

3 ŚTĊ 5

d ઠ

115, App 3664, Ap 3664, Ap 3665, Ap 3665, Ap 3665, App 48, Appl 256, App 256, App 1071, Ap 3624, App 3624, Appl 3624, App

Sequence Sequence Sequence Sequence Sequence Sequence

Sequence

Sequence Sequence Sequence Sequence Sequence Sequence

Run on:

```
Sequence 27, Application US/09100409A

Patent No. 6090388
GENERAL INFORMATION:
APPLICANT: Wang Vi
TITLE OF INVENTION: PREVENTION AND TREATMENT OF HIV INFECTION AND TITLE OF INVENTION: IMMUNE DISORDERS
NUMBER OF SEQUENCES: 64 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.2%; Score 30; DB 3; Length 8; 50.0%; Pred. No. 4.18+05; rive 2; Mismatches 2; Indels
US-09-434-355A-115
US-09-187-859-3664
US-09-187-859-3665
US-09-187-859-3665
US-09-238-754-36
US-09-258-754-36
US-09-258-754-36
US-09-258-754-36
US-09-258-754-36
US-09-42-107-36
US-09-187-859-1071
US-09-187-859-3624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version SOFTWARE: #1.25
                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/100,409A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 10154-0054
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: MORGAN & FINNEGAN STREET: 345 Park Avenue CITY: New York STATE: NY COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER:
REFERENCE/DOCKET NUMBER: 1.
TELECOMUNICATION INFORMATION
TELEPHONE: 212-758-4800
TELEFAX: 212-751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNOGSFLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-100-409A-27
                                                                                                                                                                                                                                                                                                                                                                                                         US-09-100-409A-27
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 27, Appli
Sequence 10, Appli
Sequence 49, Appli
Sequence 49, Appl
Sequence 49, Appl
Sequence 3, Appli
Sequence 3, Appli
Sequence 33, Appli
Sequence 42, Appli
Sequence 42, Appl
Sequence 214, Appl
Sequence 214, Appl
Sequence 214, Appl
Sequence 33, Appl
Sequence 214, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                 April 1, 2005, 10:49:44 ; Search time 43 Seconds (without alignments) 13.888 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
                    GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-100-409A-27

US-09-089-878-3

US-09-258-754-49

US-09-042-107-49

US-09-722-250D-49

US-09-722-250D-49

US-09-723-531-14

US-09-723-531-14

US-09-723-531-14

US-09-258-754-43

US-09-258-754-33

US-09-258-754-33

US-09-258-754-33

US-09-258-754-33

US-09-258-754-33

US-09-042-107-32

US-09-042-107-32

US-09-042-107-33

US-09-042-107-33

US-09-042-107-33

US-09-042-107-31

US-09-042-107-31

US-09-042-107-31

US-09-042-107-31

US-09-042-107-31

US-09-042-107-31

US-09-042-107-31

US-09-122-250D-12

US-09-122-250D-12

US-09-182-082-08-115

US-09-185-908-115

US-09-185-908-115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5-09-282-029A-115
5-09-185-908-115
5-09-676-475A-33
5-09-676-475A-42
5-09-676-475A-214
                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                      513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                    - protein search, using sw model
                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patents AA:*
                                                                                                                                                                                 US-09-761-636A-6
46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                     1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                      seq length: 0 seq length: 8
                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                      Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                  OM protein
                                                                                                                                                                                                                                                                                                                                                                      Minimum DB
Maximum DB
                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
```

Result Š. ö

Gaps

ö.

```
Query Match 54.3
Best Local Similarity 37.5
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CGNETLRC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CNEESLIC 8
                                                                                                                                                                                1 CGQSKVIC
                                                                                                                                   1 CNEESLIC
US-08-397-633A-100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                   ò
                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                     APPLICANT: Groat, Randall G.
APPLICANT: Groat, Thomas P.
APPLICANT: O'Connor, Thomas P.
APPLICANT: O'Connor, Thomas P.
APPLICANT: O'Connor, Thomas P.
TITLE OF INVENTION: DIAGNOSIS OF FELINE IMMUNODEFICIENCY VIRUS INFECTION
TITLE OF INVENTION: USING ENV/GAG FOLYPEPTIDE MARKERS
FILE REFERENCE: 00089,111001
CURRENT APPLICATION NUMBER: US/09/089,878
CURRENT FILING DATE: 1998-06-03
EARLIER APPLICATION NUMBER: US/09/085,615
EARLIER FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 3
SOFTWARE: PASSEQ for Windows Version 3.0
SEQ ID NO 3
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-08-397-633A-100
| Sequence 100, Application US/08397633A
| Sequence 100, Application US/08397633A
| Patent No. 5773577
| GENERAL INFORMATION:
| APPLICANT: Cappello, Joseph
| TITLE OF INVENTION: PRODUCTS COMPRISING SUBSTRATESCAPABLE
| TITLE OF INVENTION: OF ENZYMATIC CROSS-LINKING
| NUMBER OF SEQUENCES: 105
| CORRESPONDENCE ADDRESSES:
| ADDRESSEE: FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT
| STREET: 4 Embarcadero Center, Suite 3400
| CITY: San Francisco
| STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:

MEDIUM TYPE: PADAPY disk

MEDIUM TYPE: PLORDY disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/NS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRETY APPLICATION DATA:

APPLICATION NUMBER: US/08/397,633A

PILING DATE:

CLASSIFICATION: 530

ATTORNEY/AGENT INFORMATION:

NAME: ROWLANG, Bertram I

REGISTRATION NUMBER: 20,015

REFERENCE/DOCKET NUMBER: A-58848-1/BIR PROP-011-1

TELEPHONE: (415) 798-3249

INFORMATION FOR SEQ ID NO: 100:

SEQUENCE (415) 398-3249

INFORMATION FOR SEQ ID NO: 100:

SEQUENCE (415) 398-3249

INFORMATION FOR SEQ ID NO: 100:

SEQUENCE CHARACTERISTICS:

LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 26; DB 4; 1
Pred. No. 4.1e+05;
1; Mismatches 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT ORGANISM: Feline immunodeficiency virus
                                                        Sequence 3, Application US/09089878
Patent No. 6458528
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 37.5
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CNONOFFC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                   US-09-089-878-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-089-878-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                        GENERAL INFORMATION:

APPLICANT: Ruoslahti, Erkki
APPLICANT: Ruoslahti, Erkki
APPLICANT: Rasata
APPLICANT: Rajotte, Daniel
ITILE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
ITILE OF INVENTION: Membrane Dipeptidase
ITILE OF INVENTION: Membrane Dipeptidase
FILE REFERENCE: P-LJ 3443
CURRENT FILING DATE: 1999-02-26
EARLIER APPLICATION NUMBER: 09/042,107
EARLIER FILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 452
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 49
LENGTH: 8
                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFOGRATION:
APPLICANT: Rucelahti, Erkki
APPLICANT: Rucelahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Tissues
FILE REFERENCE: P-12 2892
CURRENT APPLICATION NUMBER: US/09/042,107
CURRENT FILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 436
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-258-754-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:

// OTHER INFORMATION: Description of Artificial Sequence: Synthetic

US-09-042-107-49
                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 25; DB 3; Length e;
Pred, No. 4.1e+05;
3; Indels
                                             3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54.3%; Score 25; DB 3; Length 8; 50.0%; Pred. No. 4.18+05; 1ve 1; Mismatches 3; Indels
  Length 8;
54.3%; Score 25; DB 1; ] 37.5%; Pred. No. 4.1e+05; ive 2; Mismatches 3
                                                                                                                                                                                                               US-09-258-754-49
; Sequence 49, Application US/09258754
; Patent No. 6174687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-042-107-49
; Sequence 49, Application US/09042107
; Patent No. 6232287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         54.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 50.09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 50.0
Matches 4; Conservative
```

```
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CNEES 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 CNPES 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
Patent No. 6113902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-973-551-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FACENTE INFORMATION:
APPLICANT: Renotabilini, Ferki
APPLICANT: Rejotte, Daniel
APPLICANT: Rajotte, Daniel
TITLE OF INVENTION: Membrane Dipeptidase
TITLE OF INVENTION: Membrane Dipeptidase
TITLE OF INVENTION: Membrane Dipeptidase
FILE REFERENCE: P-LA 4377
CURRENT FILING DATE: 1998-03-13
FRIOR FILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 452
SOFTWARE: Patentin Ver. 2.0
SOFTWARE: Patentin Ver. 2.0
LENGTH: 8
                                                                                                                  GENERAL INFORMATION:
APPLICANT: Rucelabti, Erkki
APPLICANT: Regualini, Renata
APPLICANT: Regualini, Renata
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Tissues
TITLE OF INVENTION: 11 ssues
TITLE OF INVENTION WINBER: US/09/722,250D
CURRENT APPLICATION NUMBER: US 09/042,107
PRIOR APPLICATION NUMBER: US 09/042,107
PRIOR PILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 437
SEQ ID NO 49
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-722-250D-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-676-475A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 25; DB 4; Lengtn 0,
Pred; No. 4.18+05;
3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 25; DB 4; Length 8; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 49, Application US/09676475A
Patent No. 6784153
                                                                                   Sequence 49, Application US/09722250D Patent No. 6610651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
US-08-973-551-14
; Sequence 14, Application US/08973551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  54.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               54.3%;
                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 50.0
المراجعة 4, Condervative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CGNETLRC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | |:| |
CGNETLRC 8
1 CGNETLRC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 4; Conserv
                                                                    US-09-722-250D-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-676-475A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
```

```
APPLICANT: Galea, Pascale
TITLE OF INVENTION: VACCINE ACAINST INFECTIOUS AGENTS HAVING
TITLE OF INVENTION: AN INTRACELLIAR PHASE, COMPOSITION FOR THE TREATMENT AND
TITLE OF INVENTION: PREVENTION OF HIV INFECTIONS, ANTIBODIES AND METHOD OF
TITLE OF INVENTION: DIAGNOSIS
CORRESPONDENCES: 28
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-520-535-3
; Sequence 3, Application US/08520535
; Patent No. 5817750
; Patent No. 5817750
; APPLICANT: Ruoslahti, Erkki
APPLICANT: Ruoslahti, Erkki
APPLICANT: Ruoslahti, Renata
; TITLE OF INVENTION: Structural Mimics of RGD-Binding Sites
CORRESPONDENCES: 28
; CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
STREET: 4170 La Jolla Village Drive, Suite 700
; STREET: California
; COUNTRY: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3; Length 7;
                                                                                                                                                                                                                                                                                           COUNTEY: USA

ZIP: 2007-5109

COMPUTER READABLE FORM:
MEDIUM TYPE: Flappy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/973,551
FILING APPLICATION: 424
PRIOR APPLICATION UNMBER: PCT/FR96/01006
PILING APPLICATION DATA:
APPLICATION NUMBER: PCT/FR96/01006
PILING APPLICATION DATA:
APPLICATION NUMBER: PS-JUN-1996
PILING DATE: 38-JUN-1996
PILING DATE: 30-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 23; DB 3; 1
Pred. No. 4.1e+05;
0; Mismatches 1,
                                                                                                                                           STREET: Foley & Lardner STREET: 3000 K Street, N.W., Suite 500 CITY: Washington STATE: D.C. COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65691/130
Chermann, Jean-Claude
Le Contel, Carole
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (202)0,2 -- TELEFAX: 904136 INFORMATION FOR SEQ ID NO: 14: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 33,683
REFERENCE/DOCKET NUMBER: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Granados, Patricia D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (202) 672-5300
```

```
US-09-258-754-42; Sequence 42, Application US/09258754; Patent No. 6174687; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity (
             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CRHESSSC 8
                                                                                                                                     | :: |:|
1 CWDDGLMC
                                                                                                               1 CNEESLIC
US-09-079-432-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 33
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 42
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/09079432
Patent No. 5955572
GENERAL INFORMATION:
APPLICANT: Rucalahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Structural Mimics of RGD-Binding Sites
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 23; DB 2; Length 8; Pred. No. 4.1e+05; 3; Mismatches 2; Indels
     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/520,535
FILLING DATE: 28-AUG-1995
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/079,432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Campbell & Flores LLP
4370 La Jolla Village Drive, Suite 700
                                                                                                                                                         CLASSIFICATION: 28 ANGLI353
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA 1794
TELECPHONE: (619) 535-8040
TELEPAX: (619) 535-8040
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILLING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 28-AUG-1995
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA 1794
TELECOMMUNICATION INFORMATION:
TELEPRAX: (619) 535-9001
TELEPRAX: (619) 535-9001
TELEPRAX: (619) 535-9001
TELEPRAX: CATAACTER.ESTICS:
SEQUENCE CATAACTER.ESTICS:
LENGTH: 8 amino acids
TYPE: amino acid
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                         50.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 37.5
Best Local Similarity 37.5
                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                               'OPOLOGY: circular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | :: |:|
CWDDGLMC 8
                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ## Sequence 33, Application US/09258754

| Sequence 33, Application US/09258754
| Sequence 33, Application US/09258754
| Sequence 34, Application US/09258754
| GENERAL INFORMATION:
| APPLICANT: Ruoslahti, Erkki
| APPLICANT: Rajotte, Daniel
| TITLE OF INVENITON: Membrane Dipeptidase

                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Ruoslahti, Erkki
APPLICANT: Ruoslahti, Renata
APPLICANT: Rajotte, Daniel
APPLICANT: Rajotte, Daniel
TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
TITLE OF INVENTION: Membrane Dipeptidase
TITLE OF INVENTION: Membrane Dipeptidase
TITLE REFERENCE: P-J 3443
CURRENT FILING DATE: 1999-02-26
EARLIER APPLICATION NUMBER: 09/042,107
EARLIER APPLICATION NUMBER: 09/042,107
SAFLIER PILING DATE: 1998-03-13
NUMBER OF SEC ID NOS: 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-258-754-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-258-754-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                  Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 50.0%; Score 23; DB 3; Length 8; Best Local Similarity 50.0%; Pred. No. 4.1e+05; Matches 4; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8;
50.0%; Score 23; DB 2; I 37.5%; Pred. No. 4.1e+05; iive 3; Mismatches 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50.0%; Score 23; DB 3; I ilarity 50.0%; Pred. No. 4.1e+05; Conservative 0; Mismatches 4;
```

```
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                       Sequence 214.614687
Sequence 214.614687
Sequence 214.614687
GENERAL INFORMATION:
GENERAL INFORMATION:
FROSTICANT: Revealabili, Erkki
APPLICANT: Rajotte, Daniel
TITLE OF INVENTION: Membrane Dipeptidase
GURRENT APPLICATION NUMBER: US/09/258,754
CURRENT PILING DATE: 1999-02-26
SABLIER APPLICATION NUMBER: 09/042,107
SABLIER PILING DATE: 1998-03-13
NUMBER OF SEQ ID NOS: 452
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 214
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 33. Application US/09042107
Patent No. 623287
Eatent No. 623287
GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or TITLE OF INVENTION: Molecules that Home to Various Selected Organs or TITLE OF INVENTION: 11saues
FILE REPERENCE: P-LJ 2892
CURRENT APPLICATION NUMBER: US/09/042,107
NUMBER OF SEQ ID NOS: 436
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-258-754-214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 23; DB 3; Length 8; Pred. No. 4.1e+05; 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50.0%; Score 23; DB 3; Length 8; 50.0%; Pred. No. 4.1e+05; tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 50.0
Best Local Similarity 37.5
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | : :|:|
CFKSTLLC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRHESSSC 8
CNEESLIC 8
                       | : | | |
1 CHEGYLTC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                            RESULT 13
US-09-258-754-214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-042-107-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-042-107-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                           g
ઠે
```

RESULT 15 US-09-042-107-42

```
; Sequence 42, Application US/09042107; Patent No. 6222287
; Fatent No. 6222287
; GENERAL INFORMATION:
APPLICANT: Ruoslahti, Erkki
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Ruoslahti, Erkki
; ATTLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: 1998-03-13
; FILE REPERENCE: P-10. 2896-03-13
; CURRENT FILING DATE: 1998-03-13
; SOFTWARE: PatentIN Ver. 2.0
; SEQ ID NO 42
; TYPE: DRT
; TYPE: DRT
; TYPE: DRT
; ORGANISM: Artificial Sequence
; FRATURE:
FRATURE:
CORGANISM: Artificial Sequence
; FRATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-042-107-42

Query Match
Best Local Similarity 50.0%; Pred. No. 4.1e+05;
Matches 4; Conservative 1; Mismatches 3; Indels 0; Gaps

OY 1 CNEESIIC 8
DD 1 CNEESIIC 8
DD 1 CHEGYLIC 8
Search completed: April 1, 2005, 10:57:21
```

THIS PAGE BLANK (USPTO)

BLOSUM62

Scoring table:

Searched:

Minimum DB Maximum DB

Database

Perfect score:

Sequence:

OM protein

Run on:

```
Enhancer-like sequences and their
                   fibroblast growth neutral proceinase seminal vesicle pr orf dowstream to b diuteric neuropept angletensin-conver hypotrehalosemic h
                                                                                                                                                                                                                                                                  hypothetical prote
bradykinin-potenti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            glycogen phosphorylase (EC 2.4.1.1), muscle - mullet (Liza ramada) (fragment)
                                                                                                                                                                                                                                                                                                            pyrrologuinoline q
                                                                                                                                                                                                  triacylglycerol li
protein QA100052 -
alpha-gliadin 6Ha
capsid protein VP-
                                                                                                                                                                hypertrehalosemic
hypertrehalosemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                   gallbladder stone matrix protein, 14.5K - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 23.Feb-1996 #sequence_revision 23-Feb-1996 #text_change 23-Feb-1996
C;Accession: D57789
R;Binette, A.P.; Binette, M.B.
Submitted to the Protein Sequence Database, February 1996
A;Pescription: The proteins of gallbladder stones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cispecies: Mus musculus (house mouse)
Cispecies: Mus musculus (house mouse)
Cispecies: Mus musculus (house mouse)
Cispecies: Musu-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999
Cispecies: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 05-Nov-1999
Cispecies: 03-Air test of the mouse H-2Kb promoter: Enhancer-like sequer
A; Reference number: 152778; MUID:86106202; PMID:3510743
A; Reference number: 152778; MUID:86106202; PMID:3510743
A; Reference number: 15546
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-6 <a href="https://www.mass.com/residues/">www.mass.com/residues/<a href="https://www.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36.1%; Score 22; DB 2; Length 11; 66.7%; Pred. No. 8.8e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32.8%; Score 20; DB 2; Length 6; 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                        ALIGNMENTS
                                                                                                                     XAVI6B
B33995
JC1416
S09138
PC2171
PA0050
B61218
E86128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MHC H2-L antigen - mouse (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3; Conservative
    A,Accession: D57789
A,Status: preliminary
A,Molecule type: protein
A,Residues: 1-11 <BIN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5 PLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PATSAP 6
9 VPC 11
  RESULT 2
165546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gamma-interferon-i
metallothionein-A
Ig heavy chain CRD
118K stomach cance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T-cell receptor be
Na+/K+-exchanging
polygalacturonase
tachykinin II - mi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     parasporal crystal
peptide-N4-(N-acet
Ig H chain V-D-J r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               large granule L3 c
adipokinetic hormo
neuropeptide Led-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypertrehalosemic
adipokinetic hormo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          glycogen phosphory
hypothetical prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205K exoantigen -
Ig heavy chain C r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T-cell receptor be
T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vitellogenin, 190k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical colla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MHC H2-L antigen -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             major protein anti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gallbladder stone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                (without alignments)
27.852 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T-cell restathmin
                                                                                                                                            1, 2005, 11:03:25; Search time 38 Seconds
                     GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                      283416 seqs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                    - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C39111
PH0944
PH0929
S21727
IS1049
PT0247
A60356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PH0926
A32195
S62880
ECLQ2M
S00616
B59272
PH1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C39191
G33098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PH0941
PN0042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PC1316
A33995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B44960
                                                                                                                                                                                                                                                                                                                                Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A35039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E60274
                                                                                                                                                                                                                         US-09-761-636A-7
61
                                                                                                                                                                                                                                                                  1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
1: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq length: 0 seq length: 11
```

Score

Result ģ ö

Gaps ö ô

Gaps

ö

ö

Gaps

ö

```
Ig heavy chain C region - Pacific hagfish (fragment)
C;Species: Eptatretus stouti (Pacific hagfish)
C;Date: 18-Oct-1991 #sequence_revision 18-Oct-1991 #text_change 16-Aug-1996
C;Accession: C39111
R;Varner, J.; Neame, P.; Litman, G.W.
Proc. Natl. Acad. Sci. U.S.A. 88, 1746-1750, 1991
A;Title: A serum heterodimer from hagfish (Eptatretus stoutii) exhibits structural simil: A;Reference number: A39111; MUID:91156684; PMID:2000382
A;Accession: C39111
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <VAR>
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T-cell receptor beta chain V-D-J region (clone 15) - rat (fragment)
C;Species: Rattus norregicus (Norway rat)
C;Species: Poct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Accession: PH0929
R;Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A;Title: Analysis of T cell receptor beta chains in Lewis rats with experimental allergic A;Reference number: PH0929.
A;Reference number: PH091; MUID:92078857; PMID:1836012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T-cell receptor beta chain V-D-J region (clone 15) - rat (fragment)
C;Species: Rattus norregicus (Norway rat)
C;Accession: PH0944
R;Gold, D.P.; Offiner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A;File: Analysis of T cell receptor beta chains in Lewis rats with experimental allergic
A;Reference number: PH0891; MUID:92078857; PMID:1836012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Accession: PH0944
A;Molecule type: mRNA
A;Residues: 1-10 «GDL»
A;Experimental source: complete Freund's adjuvant-immunized lymph node
A;Experimental source: translated the codon GAC for residue 9 as Glu
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                   27.9%; Score 17; DB 2; Length 10;
80.0%; Pred. No. 6e+03;
ive 0; Mismatches. 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB 2; Length 10;
Pred. No. 6e+03;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 1-11 <600L>
A;Experimental source: concanavalin A-activated lymphoblast
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 17; DB 2; I
Pred. No. 6.6e+03;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27.9%;
illarity 57.1%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity و٥٠٠٠
المام 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                           Best_Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 isvpr 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CASSP 5
                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  dd
                        C;Species: Liza ramada
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 15-Mar-2004
C;Accession: A60521
R;Bonamusa, L; Baanante, I.V.
Comp. Biochem. Physiol. B 95, 295-301, 1990
A;Title: Purification and characterization of glycogen phosphorylase B from skeletal mus
A;Reference number: A60521; MUID:90227907; PMID:2109669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C.Species: Bacteroides fragilis
C.Date: 08-Nov-1991 #sequence_revision 08-Nov-1991 #text_change 30-Sep-1993
C.Cacessian: C39191
R.Speer, B.S.; Bedzyk, L.; Salyers, A.A.
J. Bacteriol. 173, 176-183, 1991
A.Title: Evidence that a novel tetracycline resistance gene found on two Bacteroides tra
                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 1-5 <BON>
C;Keywords: glycosyltransferase; hexosyltransferase; phosphoprotein
F;3/Binding site: phosphate (Ser) (covalent) (by phosphorylase b kinase) #status experim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               205K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)
C;Species: Plasmodium falciparum
C;Date: 24-Aug_1990 #sequence_revision 24-Aug-1990 #text_change 09-Jun-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hypothetical protein 1 (Tetx 5' region) - Bacteroides fragilis
C;Species: Bacteroides fragilis
C;Date: 08-Nov.1991 #sequence_revision 08-Nov-1991 #text_change 30-Sep-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: preliminary; not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                             Similarity 100.0%; Pred. No. 2.8e+05; 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27.9%; Score 17; DB 2; Length 8; 66.7%; Pred. No. 2.8e+05; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C. Accession: G33098
R. Nichols, J.H.; Hager, L.P.
submitted to the Protein Sequence Database, May 1990
A. Reference number: A33098
A. Accession: G33098
A. Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 18; DB 2;
Pred. No. 4e+03;
1; Mismatches
        N;Alternate names: glycogen phosphorylase b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Molecule type: DNA
A,Residues: 1-10 <SPE>
A,Cross-references: GB:M37699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 SRPWTSI 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: protein A; Residues: 1-8 <NIC>
                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SVPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 VPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ISVP 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

ö

Gaps

.; 0

ö

Gaps

; 0

1 CASRPGT

Length 11; 3; Indels

```
C;Accession: A60356
R;Shiraishi, Y.
A;Title: Western blotting analysis for malignant lymphoma and stomach cancer antigens from A;Reference number: A60356; MUID:90216080; PMID:2223853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N;Contains: vitellin N;Contains: yivey motn (iragment) N;Contains: vitellin dispar (gypsy moth) C;Species: Lymantia dispar (gypsy moth) C;Species: Lymantia dispar (gypsy moth) C;Date: 21-Ual-1995 #sequence_revision 28-Jul-1995 #text_change 15-Oct-1999 C;Accession: A61622 A;Fitzeneuth, S:; Eshita, S. Rahita, S. Rahita,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell receptor beta chain V-D-J region (isolate 12) - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Species: O9-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Accession: PH0926
R;Gold, D.P.; Offiner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A;Fitle: Analysis of T cell receptor beta chains in Lewis rats with experimental allergic
A;Reference number: PH0891; MUID:92078857; PMID:1836012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                    C;Species: Homo sapiens [man]
C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-10 <GOL>
A;Residues: 1-10 <GOL>
B;A;Experimental source: concanavalin A-activated lymphoblast A;Note: the authors translated the codon AGA for residue 4 as Thr C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16; DB 2; Length 10;
Pred. No. 9e+03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 26.2%; Score 16; DB 2; 1
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16; DB 2;
Pred. No. 9e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26.2%; Scor.
100.0%; Pred. No. >c...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vitellogenin, 190k chain - gypsy moth (fragment)
                                                                                                                                                                                     118K stomach cancer antigen - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Cross-references: UNIPROT: Q7M4R6
C; Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: protein
A;Residues: 1-10 <HIR>
C;Keywords: egg yolk; hemolymph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 10v.,
Labes 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: protein A; Residues: 1-9 <SHI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 VPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 IPĽKPV 6
2 SAPIDS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A:Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: PH0926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 PLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: I51049

Ryolsson, P.E.; Kling, P.; Erkell, L.J.; Kille, P.

Bur. J. Blochem. 230, 344-349, 1995

A;Title: Structural and functional analysis of the rainbow trout (Oncorhyncus mykiss) me
A;Reference number: I51049; MUID:95324545; PMID:7601121
                                                                                                                                                                                     CjAccession: 221727
R;Wei, M.L.; Cresswell, P.
Nature 356, 443-446, 1992
A;Title: MiA-A-Molecules in an antigen-processing mutant cell contain signal sequence-d
A;Reference number: S21727; MUID:92212461; PMID:1557127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ig heavy chain CRD3 region (clone 2-106A) - human (fragment)
(Species: Homo sapiens (man)
(Species: Homo sapiens (man)
(Spate: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
(Stacession: PT0247
(R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
(B,Yamada, M.; Massermin, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
(A) Title: Preferential utilization of specific immunoglobulin heavy chain diversity and A;Reference number: PT0222; MUID:91108337; PMID:1899102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:X80181; NID:g1019799; PIDN:CAA56466.1; PID:g4379328
                                                                         gamma-interferon-induced protein IP-30 precursor - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: $21727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Species: Oncorhynchus mykiss (rainbow trout)
Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
A;Moleoule type: protein
A;Residues: 1-11 <WEL:
A;Cross-references: UNIPROT:Q8NE14; UNIPROT:Q9UPH8; UNIPROT:Q8WU77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 37.5%; Score 17; DB 2; Length 11; Similarity 37.5%; Pred. No. 6.6e+03; 3; Conservative 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26.2%; Score 16; DB 2; Length 4; 100.0%; Pred. No. 2.8e+05; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26.2%; Score 16; DB 2; Length 9; 50.0%; Pred. No. 2.8e+05; ative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-4 <OLS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 metallothionein-A - rainbow trout (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Experimental source: B lymphocyte Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 26.2
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 50.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 LDVPTAAV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 ISVPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 3; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA A; Residues: 1-9 < YAM> A; Experimental sorr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SVPLTS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 PC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PC 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
```

g

ò 유

```
RESULT 15
Na.2195
Na.74+-exchanging ATPase (EC 3.6.3.9) alpha chain - dog (fragment)
C;Species: Canis lupus familiaris (dog)
C;Date: 20-Oct-1989 #sequence_revision 20-Oct-1989 #text_change 19-Apr-2002
C;Accession: A32195
B;Yson, P. A.: Steinberg, M.; Wallick, E.T.; Kirley, T.L.
J. Biol. Chem. 264, 726-734, 1989
A;Title: Identification of the 5-iodoacetamidofluorescein reporter site on the Na,K-ATPa A;Accession: A32195
A;Reference number: A32195; MUID:89093137; PMID:2536022
A;Status: preliminary
A;Accession: A32195
A;Status: proliminary
A;Residues: 1-10 <TYS>
C;Keywords: hydrolase
       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match 26.2%; Score 16; DB 2; Length 10; Best Local Similarity 44.4%; Pred. No. 9e+03; Matches 4; Conservative 1; Mismatches 4; Indels
    2; Indels
  0; Mismatches
3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLTSV 9
                                                                                 1 CASRP 5
                                            1 CISVP 5
Matches
                                                                               QQ
                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

Search completed: April 1, 2005, 11:11:12 Job time : 39 BECS

|| : || 1 CIELCXGSV 9

셤

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

protein search, using sw model OM protein - Run on:

April 1, 2005, 10:57:25 ; Search time 115 Seconds (without alignments) 48.981 Million cell updates/sec

US-09-761-636A-7

61 1 CISVPLTSVPC 11 Perfect score: Sequence:

Scoring table:

BLOSUM62 Gapóp 10.0 , Gapext 0.5

1612378 seqs, 512079187 residues Searched:

Total number of hits satisfying chosen parameters:

3223

Minimum DB seq length: 0 Maximum DB seq length: 11

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

P83092 spinacia ol	P58785 conus purpu	Q9fxl0 lilium long	Q9ny38 homo sapien	Q99n81 mus musculu	P29177 bos taurus	Q8kpx4 microcystis	Q7x6a3 zea mays (m	Q9k4m6 staphylococ	P30090 homo sapien	Q96041 oenothera b	Q7y0i8 zea mays (m	039957 gb virus c/	077871 oreochromis
P83092	COW2 CONPU	Q9FXL0	Q9NY38	Q99N81	MGMT BOVIN	Q8KPX4	Q7X6A3	Q9K4M6	UPA4 HUMAN	Q960 <u>4</u> 1	Q7Y018	039957	077871
N	н	0	~	0	П	N	7	0	п	7	N	~	7
11	8	6	11	11	σ	œ	σ	σ	10	10	10	10	11
31.1	29.5	29.5	29.5	29.5	28.7	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
19	18	18	18	18	17.5	17	17	17	17	17	17	17	17

ALIGNMENTS

÷

callistemon hoplobatrac

Q9TKG2 TIN1_HOPTI

D9TKG0

melaleuca v

Bos taurus (Bovine). Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae, 888

Best Loc Matches

SO REPRESENTANT SO STATE THE SO

```
SEQUENCE FROM N.A.
MEDILIPE-812169811; PubMed=6281735;
Donoghue D.J., Hunter T.;
"A generalized method of subcloning DNA fragments by restriction site reconstruction: Application to sequencing the amino-terminal region of the transforming gene of Gazdar murine sarcoma virus.";
Nucleic Acids Res. 10:2549-2564(1982).
                          Viruses; Retroid viruses; Retroviridae; Gammaretrovirus. NCGI_TaxID=11801;
                                                                                                                                                                                                                                                                                                                                 32.8%; Score 20; DB 2; 175.0%; Pred. No. 7.2e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 AA.
                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q85598 PRELIMINARY; PRT; Q85598; CTEMBLE1. 01, Created)
Env-mos fusion protein (Fragment). Moloney murine leukemia virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=83164305; PubMed=6300424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 75.0
nes 3; Conservative
                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                             Similarity
3; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11801;
                                                                                                                                                                                                                                                                                                                                                                                        SVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 SVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                  4 STPC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STPC 7
                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     085619
                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
Q85619
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            085598
  쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEPTACE
                                                                                                                                                                                                                                ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Translocation of transposition-deficient [Tn(d)PKLH2-like] transposons in the natural environment: mechanistic insights from the study of adjacent DNA sequences."; Microbiology 150:979-992(2004).
                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=BW3;
PubMed=15073307; DOI=10.1099/mic.0.26844-0;
Kholodii G., Mindlin S., Gorlenko Z., Petrova M., Hobman J., Nikiforov V.;
                                                                                                                                                                                                 34.4%; Score 21; DB 2; Length 11; 57.1%; Pred. No. 5.2e+03; tive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=BW3;
Kholodii G.Y.;
Submit-ded (MAY-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ486856; CAD31078.1; -.
                                                                                                                                                                      11 AA; 1126 MW; DD785FF8A2D2D772 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                   (TrEMBLrel. 27, Created)
(TrEMBLrel. 27, Last sequence update)
(TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON TER 1 1 1
SEQUENCE 8 AA; 911 MW; 2D71B2D6C1A73774 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32.8%; Score 20; DB 2; 1
80.0%; Pred. No. 1.6e+06;
cive 0; Mismatches 1,
                                      SEQUENCE FROM N.A.
MEDLINE=20154958; PubMed=10680368;
MEDLINE=20154958; PubMed=10680368;
Machine Gener H.;
"A polymorphism in the bovine c-kit gene.";
Anim. Genet. 31:11-71(2000).
Anim. AJ244424; CAB60775.1; -..
EMBL; AJ243060; CAB60775.1; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Moraxellaceae, Acinetobacter
NCBI_TaxID=106395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel. 01, (TrEMBLrel. 01, (TrEMBLrel. 19,
                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Acinetobacter sp. BW3.
Plasmid pKLH207.
                                                                                                                                                                                                                                                                                                                                                                                                                                 (Fragment)
                                                                                                                                                                                                                                                         3 SVPLTSV 9
                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                    3 AVPVVŠV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
             NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S PLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 PLTQV 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1996
01-NOV-1996
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                     05-JUL-2004
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                 Transposase
                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=tnp17;
                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                          NON TER
NON TER
                                                                                                                                                                                                                                                                                                                                                       Q7AUJ4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           085563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             085563
```

RESULT 3
107AUJ4
10 AC Q7AUJ
AC Q7AUJ
DT 05-J

RESULT 4

g

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
SEQUENCE FROM N.A.
MEDLINE=83164305; PubMed=6300424;
Donodphue D.J., Hunter T.;
"Recombination junctions of variants of Moloney murine sarcom virus:
Generation and divergence of a mammalian transforming gene.";
J. Virol. 45:607-617(1983).
EMBL...
EMBL...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Donogiue D.J., Hunter T.;
"Recombination junctions of variants of Moloney murine sarcom virus: Generation and divergence of a mammalian transforming gene.";
J. Virol. 45:607-617(1983).
BMBL; K03106; AA46692.1; -.
NON TER
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Moloney murine sarcoma virus (strain HT1) env/mos 5' junction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q85619;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Moloney murine sarcoma virus (strain m1) env/mos 5' junction.
(Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32.8%; Score 20; DB 2; Length 10; 75.0%; Pred. No. 7.2e+03; rive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                             Length 10;
                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Fragment).
Moloney murine leukemia virus.
Viruses; Retroid viruses; Retroviridae; Gammaretrovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER 10 10 SECFCBEA771B5A4 CRC64; SEQUENCE 10 AA; 1081 MW; 7BECFCBEA771B5A4 CRC64;
                                                                                                                                                                                                                                                 10 AA; 1062 MW; F9ECFCBEA771B5B1 CRC64;
```

ö

```
Query Match
Best Local Similarity 100.v
                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STP6 protein (Fragment).
                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=106056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AtpB (Fragment).
Name=atpB;
                                                                                                                                                                                                                                                                                              7 TSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=1308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISVP 5
                                                                                                                                                                                                                                                                                                                                        3 TSVP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1996
01-NOV-1996
                                                                                                                            Receptor.
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 056140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9THM6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                           056140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9MHT60
    SFERENCE
                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=99267322; PubMed=10333492; DOI=10.1042/0264-6021:3400475; MEDLINE=99267322; PubMed=10333492; DOI=10.1042/0264-6021:3400475; Mood I.C., Garriga Canut M., Pepitoni S., Buckley N.J.; Mouronal expression of the rat MI muscarinic acetlycholine receptor gene is regulated by elements in the first exon."; Historical and Anna (1999).

Biochem. J. 340:475-483(1999).

GO; GO:0004872; F:receptor activity; IEA.
                                                                              SEQUENCE FROM N.A.
MEDLINE=81164305; PubMed=6300424;
Donoghue D.J., Hunter T.;
"Recombination junctions of variants of Moloney murine sarcom virus:
Generation and divergence of a mammalian transforming gene.";
J. Virol. 45:607-617(1983).
BEMBL; K03108; AAA46494.1; -.
NON_TER 10 10 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN=C57B6a/129Sv;
MEDLINE=99267322; PubMed=10333492; DOI=10.1042/0264-6021:3400475;
                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                              32.8%; Score 20; DB 2; Length 10; 75.0%; Pred. No. 7.2e+03; ative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
M1 muscarinic acetylcholine receptor protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
M1 muscarinic acetylcholine receptor protein (Fragment).
Musculus (Mouse).
Moloney murine leukemia virus.
Viruses; Retroid viruses; Retroviridae; Gammaretrovirus.
                                                                                                                                                                                                                                                     SEQUENCE 10 AA; 1081 MW; 7BECFCBEA771B5A4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 11 11 11 11 11 11 AA; 1099 MW; 982DOBF4C77772D5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32.8%; Score 20; DB 2; Le 100.0%; Pred. No. 7.9e+03; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                          3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                         NCBI_TaxID=11801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 TSVP 10
                                                                                                                                                                                                                                                                                                                                                                                 8 SVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                    4 STPC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 TSVP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Receptor.
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q712U0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                071201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
2071200
1D 0071210
AC 07122
BT 05-J
DT 05-J
D
                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
Q712U1
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

```
STRAIN=ST11;
MEDLINE=95647254; PubMed=7958782;
Constable A., Mollet B.;
"Isolation and characterisation of promoter regions from Streptococcus thermophilus."; Chett. 122:85-90(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           O'Brien M.M., Quinn C.J., Wilson P.G.;
"Molecular Systematics of the Leptospermum Suballiance (Myrtaceae).";
Aust. J. Bot. 48:621-628(2000).
                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chloroplast.
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
Myrtales; Myrtaceae; Leptospermum.
Wood I.C., Garriga Canut M., Pepitoni S., Buckley N.J.;
"Neuronal expression of the rat M1 muscarinic acetlycholine receptor
gene is regulated by elements in the first exon.";
Biochem. J. 340:475-483(1999).
                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
                                                                                                                                                                                                                                                                           32.8%; Score 20; DB 2; Length 11; 100.0%; Pred. No. 7.9e+03; tive 0; Mismatches. 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31.1%; Score 19; DB 2; Length 8; 100.0%; Pred. No. 1.6e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Streptococcus thermophilus.
Bacteria, Firmicutes, Lactobacillales, Streptococcaceae,
                                                                                                                                                                                               11 11
11 AA; 1099 MW; 982D0BF4C77772D5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 AA; 846 MW; ED086772D5B045B6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leptospermum polygalifolium subsp. tropicum.
                                                                                                        EMBL; AJ006521; CAA07082.1; -. GO: 00004872; F:receptor activity; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X78210; CAA55045.1; -. NON TER 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-DEC-2001 (TrEMBLrel. 19,
```

ö

```
31.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31.1%;
                                                                                                                                                                                                                                                                                                         01-MAX-2000 (TrEMBLrel. 13, 01-MAX-2000 (TrEMBLrel. 13, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13,
01-MAY-2000 (TrEMBLrel. 13,
01-JUN-2003 (TrEMBLrel. 24,
AtbB (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leptospermum wooroonooran.
                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                              Neofabricia mjoebergii.
                                                                                                                                                                          Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                             5 PLTSVP 10
                                                                                                                                                                                                                                5 PTTSRP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 PLTSVP 10
              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PTTSRP 10
                                                                                                                                                                                                                                                                                                                                          AtpB (Fragment).
                                                                                                                         Chloroplast.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9TKE2;
                                                                                                                                                                                                                                                                                      Q9TKE1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9TKE2
                                                                                                                                                                                                                                                                RESULT 13
Q9TKE1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09TKE2
1D 09
AC 09
DT 01
DT 01
DE At GN NA
     à
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                 à
                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
O'BARAD M.M., Quinn C.J., Wilson P.G.;
Molecular Systematics of the Leptospermum Suballiance (Myrtaceae).";
Aust. J. Bot. 48:621-628(2000).
                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                 Chloroplast.
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnollophyta, eudicotyledons, core eudicots, rosids,
Myrtales, Myrtaceae, Leptospermum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Sperimatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids, Myrtales, Myrtaceae, Neofabricia.
                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                          Score 19; DB 2; Length 10;
Pred. No. 1.1e+04;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31.1%; Score 19; DB 2; Length 10; 66.7%; Pred. No. 1.1e+04; ttive 0; Mismatches 2; Indels
                     Heslewood M., Quinn C.J.;
Submitted (FRB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF164695: AAF03864.1;
GO; GO:0009507; C:chloroplast; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                  SECUENCE FROM N.A.
Healewood M., Quinn C.J.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, AF1846921, AAF03862.1, -.
GO; GO:0009507; C:Chloroplast; IEA.
                                                                          NON TER 10 10 SQUENCE 10 AA; 1172 MW; 1DB12CA1B1B76440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NON_TER 10 10 SEQUENCE 10 AA; 1172 MW; IDB12CA1B1B76440 CRC64;
                                                                                                                                                                                                                                                 01-WAY-2000 (TrEMBLrel. 13, Created)
01-WAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NAY-2000 (TrEMBLrel. 13, Created)
01-NAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                10 AA
                                                                                                                                                                                                                                                                                                       Leptospermum madidum subsp. sativum.
                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                        31.1%;
66.7%;
                                                                                                                     Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Neofabricia sericisepala.
                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                    5 PLTSVP 10
                                                                                                                                                                         5 PTTSRP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
[2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 PLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTTSRP 10
                                                                                                                                                                                                                                                                                   AtpB (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AtpB (Fragment).
                                                               Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chloroplast
                                                                                                                                                                                                                                                                                             Name=atpB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=atpB
                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                              Q9THM7
                                                                                                                                                                                                                                        Q9THM7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O9TKEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9TKE0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                       RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9THM7
 S TY BRE SO STAN
                                                                                                                                                                      g
                                                                                                                                                    ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
O'Brien M.M., Quinn C.J., Wilson P.G.;
"Molecular Systematics of the Leptospermum Suballiance (Myrtaceae).";
Aust. J. Bot. 48:621-628(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
O'Brian M.M., Quinn C.J., Wilson P.G.;
Molecular Systematics of the Leptospermum Suballiance (Myrtaceae).";
Aust. J. Bot. 48:621-628(2000).
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chloroplast.

Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids,
Myrtales, Myrtaceae, Neofabricia.

NCBI_TaxID=106064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                   Score 19; DB 2; Length 10;
Pred. No. 1.1e+04;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 19; DB 2; Length 10;
Pred. No. 1.1e+04;
0; Mismatches 2; Indels
                                                                      [2]
SEQUENCE FROM N.A.
Heslewood M., Quinn C.J.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF184700; AAF03869.1; -.
GO; GO:0009507; C:chloroplast; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
Heslewood M., Quinn C.J.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                             NON_TER 10 10 10 SEQUENCE 10 AA; 1172 MW; 1DB12CA1B1B76440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 10
10 AA; 1172 MW; 1DB12CA1B1B76440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF184699; AAF03868.1; -. GO; GO:0009507; C:chloroplast; IEA
```

```
.
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [1] --
SEQUENCE FROM N.A.
O'Brien M.M., Quinn C.J., Wilson P.G.;
"Molecular Systematics of the Leptospermum Suballiance (Myrtaceae).";
Aust. J. Bot. 48:621-628(2000).
                                                                                                                                                                            SEQUENCE FROM N.A.
O'BAILEN M.W., Quinn C.J., Wilson P.G.;
Mobiecular Systematics of the Leptospermum Suballiance (Myrtaceae).";
Aust. J. Bot. 48:621-628(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
Chloroplast.

Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta;
Spermatophyta, Magnoliophyta; eudicotyledons; core eudicots; rosids;
Myrtales; Myrtaceae; Leptospermum.
NCBI_TaxID=106059;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryophyta; Juridiplantae; Streptophyta; Embryophyta; Tracheophyta; Bukaryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; Myrtales; Myrtaceae; Leptospermum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 19; DB 2; Length 10;
Pred. No. 1.1e+04;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31.1%; Score 19; DB 2; Length 10; 66.7%; Pred. No. 1.1e+04; trive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                  Heslewood M., Quinn C.J.;
Submitted (PEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF184698; AAF104698; AC Colloroplast; IEA.
GO; GO:0009507; C:chloroplast; IEA.
Chloroplast.
NON TER 10 10
SEQÜENCE 10 AA; 1172 MW; 1DB12CA1B1B76440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
Healewood M., Quinn C.J.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF184694; AAF03863.1; -.
GO; GO:0009507; C:chloroplast; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chloroplast.
NON TER 10 10
SEQÜENCE 10 AA; 1172 MW; 1DB12CA1B1B76440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-WAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Leptospermum parvifolium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 66.7
les 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 PLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 PLTSVP 10
                                                                                                                                                                                                                                                                                               [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5 PTTSRP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PTTSRP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AtpB (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=atpB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9TKE3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9TKE3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
097KE3
10 01-MA
DT 01-MA
DE ALDB
D
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

Search completed: April 1, 2005, 11:10:22 Job time : 116 secs

THIS PAGE BLAWK (USPTO)

```
Human VEG
Human VEG
VEGF base
Partial p
CA125/MUC
SA2 bindi
SH2 bindi
Hepatitis
MHC class
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               base
base
base
base
base
                                                                                                                                                                                    April 1, 2005, 10:56:34 ; Search time 118 Seconds (without alignments) 36.054 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEGF | VE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aau04542
Aau04545
Aau04544
Aau04554
Aau04533
Aau04533
Aau04529
Aau04529
Aau04529
Aau12615
Aau12615
Aau12615
Aau12615
Aau12615
Aau12615
Aau12615
Aau12615
Aau12615
Aau12616
Aau
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             494136
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2105692 seqs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                 - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU04543
AAU04532
AAU04533
AAU04533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADK65202
ADK65204
AAU04529
AAR58418
AAR534703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW12561
AAW12615
ADK06442
ADM12370
ADM38592
ADK42764
ABP47579
ABP47579
ADM35397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2003as:*
geneseqp2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Geneseq_16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                     US-09-761-636A-7
61
                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4797788888557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0 seq length: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                 OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
```

Human LY1	SH3 bindi	N. mening	C3 exoenz	Mammalian	Partial p	Isolated	Mouse pla	Immunosup	Human gen	Human alb	Hepatitis	Albumin f	Protease	D-NorFES-	Peptide b					
Adm35456	Adm35435	Adm35451	Adm35434	Adm35426	Aar77368	Abp47596	Adi82595	Aay41619	Aar58417	Aay26265	Abr56927	Adr28717	Aag73418	Abg64264	Adk06214	Ad177529	Aar96138	Aaw82212	Aaw46562	
ADM35456	ADM35435	ADM35451	ADM35434	ADM35426	AAR77368	ABP47596	ADI82595	AAY41619	AAR58417	AAY26265	ABR56927	ADR28717	AAG73418	ABG64264	ADK06214	ADL77529	AAR96138	AAW82212	AAW46562	
7	7	7	7	7	N	'n	ω	N	N	~	9	œ	4	'n	ω	a	~	~	0	
Ó	σ	σ	თ	O	10	11	11	φ	60	σ	σ	o,	10	10	10	10	0	σ	σ	
44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	41.8	41.8	41.8	
27	27	27	27	27	27	27	27	26	26	26	26	26	26		26	26	25.5	25.5	25.5	
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	

ALIGNMENTS

Human, VEGF, vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. AAU04526 standard; peptide; 11 AA VEGF based monocyclic peptide 3. (first entry) 26-SEP-2001 AAU04526; RESULT 1 AAU04526

Location/Qualifiers Disulfide-bond Synthetic

 11
 Inote= "This bond cyclises the peptide" WO200152875-A1 26-JUL-2001.

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. 18-JAN-2001; 2001WO-US001533

Cendron Stacker S, Hughes RA, Achen MG,

(LUDW-) LUDWIG INST CANCER RES

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

Ovarian c Modulator

N. mening N. mening

Human LY1 Human up-Human LY1 Human LY1 Human LY1

ADM35430 ADM35441

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, cover and the condition is characterised by anglogenesis, neovascularisation or lymphanglogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, corebrovascular accident, post-angloplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive cerebrovascular accident, post-angloplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive corpusated anglogenic dysfunction, diabetes induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic with at least one biological activity induced by VEGF, VEGF or -D and are also used in combination with an anti-inflammatory agent, to treat a channal in the colling are lastivity induced by VEGF, corlon and also when a condition and archititis, psoriasis and also when and also were also used in combination with an anti-inflammatory agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 61; DB 4; Length 11; 100.0%; Pred. No. 0.0021; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
           ð
```

1 CISVPLTSVPC 11 a

AAU04542 standard; peptide; 11 AA. VEGF based monocyclic peptide 20. 26-SEP-2001 (first entry) AAU04542; RESULT 2
AAU04542
ID AAU0
XX
XX
AAU0
XX
DT 26-S
XX
KW HUMB
KW HOBOW
KW Giab
XX
KW Giab
XX
KW Giab
XX
KW Giab
XX
KW HUMB
XX
COS Synt
COS

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic.

1. .11
/note= "This bond cyclises the peptide" Location/Qualifiers Disulfide-bond

WO200152875-A1.

26-JUL-2001

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

18-JAN-2001; 2001WO-US001533

Achen MG, Hughes RA, Stacker S, (LUDW-) LUDWIG INST CANCER RES

Cendron A;

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CV WGGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betact carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteinne residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior or cyclisation are used to interfere with angiogenesis, conversally according to a sequence of condition or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC forcondition is diabetic retinopathy, psoriasis, arthropathy, chemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restencisis, head, heat or cold crauma, substance-induced neovascularisation of the liver, excessive chormoe-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral linbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere contain inflammation, especially rheumatoid arthritis, psoriasis and and accident processed and accident processed and accident and acc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 59; DB 4; Length 11;
Pred. No. 0.0045;
1; Mismatches 0; Indels
                                                           Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 96.7
Best Local Similarity 90.9
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLISVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 11 AA;
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
```

AAU04545 standard; peptide; 11 AA. VEGF based monocyclic peptide 23. (first entry) 26-SEP-2001 AAU04545; AAU04545 RESULT

; 0

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Synthetic.

1. .11 /note= "This bond cyclises the peptide" Location/Qualifiers Key Disulfide-bond

WO200152875-A1.

26-JUL-2001.

18-JAN-2001; 2001WO-US001533

18-JAN-2000; 2000US-0176293P.

Cendron A;

Stacker S,

```
neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

    .11
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                  Human; VEGF; vascular endothelial
                                                                                                                                                                                                                                                                                                                                                              AAU04543 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                     VEGF based monocyclic peptide 21.
                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                     9; Conservative
                                                                                                                                                                                                                                                                                                                 1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                        |:|||||:|||
1 CVSVPLTTVPC 11
                                                                                                                                                                                                                                                             diabetic retinopathy
                         WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                          Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                          residues.
                                                                                                                                                                                                                                                                                                                                                                           AAU04543;
                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                       셤
```

```
Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 25; Page 47; 102pp; English
                                                                                                                                                                                                                                               (LUDW-) LUDWIG INST CANCER RES
                                                                                                            .8-JAN-2001; 2001WO-US001533.
                                                                                                                                                               18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                      Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-442248/47.
  WO200152875-A1.
                                                      26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               residues
  The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is madelled on the expose loop of human vEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cycleine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis.

The condition is labelic retinopathy, psoriasis, arthropathy, chemangiona, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive corneams, substance-induced neovascular sequelae, now accountant of peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid a condition as a condition characterised by fluid a condition are limbed by indication of the liver in a mammal the mammal has a condition characterised by fluid accumed by the condition characterised by fluid are mammal the mammal has a condition characterised by fluid are mammal the mammal has a condition characterised by fluid are mammal the mammal has a condition characterised by fluid are mammal the mammal has a condition characterised by fluid are mammal the mammal has a condition of the liver liver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                               Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or brain. The peptides are used to image blood vessels and lymphatic seatulature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chronic inflammation, especially rheumatoid arthritis, psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 57; DB 4; Length 11;
Pred. No. 0.0095;
2; Mismatches 0; Indels
                                                      Cendron A;
                                                                                                                                                                                                                                                                                                      Example 25; Page 47; 102pp; English
                                                      Achen MG, Hughes RA, Stacker S,
(LUDW-) LUDWIG INST CANCER RES
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CV Wyope (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-composed loop of a growth factor protein and peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior compileriation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC Cocyclisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC The condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive corporation induced neovascularisation of the liver excessive corporation. The peptides are also used to modulate vascular permeability corporation in peripheral limbs or in lungs, peritoneal cavity, pleura, corbinant the peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF. VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a corporation inflammation, when an anti-inflammatory agent, to treat a corporation inflammation with an anti-inflammatory agent, to treat a corporation inflammation with an anti-inflammatory agent, to treat a corporation inflammation with an anti-inflammatory agent, to treat a corporation in the peptides are used to induced are also used in combination with an anti-inflammatory agent, to treat a corporation inflamented by the corporation in t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 54; DB 4; Length 11;
Pred. No. 0.03;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04544 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VEGF based monocyclic peptide 22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match
Best Local Similarity 72.,
8 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||::||||:||
1 CITIPLTSLPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLTSVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU04544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E E K E K E K E K E
```

growth factor; angiogenesis;

```
Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

    .11
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                 Example 25; Page 47; 102pp; English.
                                       Location/Qualifiers
                                                                                                                                            (LUDW-) LUDWIG INST CANCER RES
                                                                                                     18-JAN-2001; 2001WO-US001533
                                                                                                                   18-JAN-2000; 2000US-0176293P.
                                                                                                                                                           Achen MG, Hughes RA,
                                                                                                                                                                           WPI; 2001-442248/47.
                                             Digulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 11 AA;
                                                                     WO200152875-A1
                                                                                     26-JUL-2001.
                        Synthetic.
                                                                                                                                                                                                                 residues.
```

```
characterised by angiogenesis, in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis in a mammal with a condition is diabetic retinopathy, psoriasis, arthropathy.

The condition is diabetic retinopathy, psoriasis, arthropathy.

The condition is diabetic retinopathy, psoriasis, arthropathy.

Cerebrovascular accident, post-angioplasty restenosis, head, head or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in amammal (the mammal has a condition characterised by fluid or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere wasculature. The monomeric and bicyclic peptides are used to interfere wasculature. The monomeric and bicyclic peptides are used to interfere can be least one biological activity induced by VEGF, VEGF. Or -D and are also used in combination with an anti-inflammatory agent, to treat a chick of the combination with an anti-inflammatory agent, to treat a chick of the combination with an anti-inflammatory and
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides to yoxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclistation are used to interfere with angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or cold
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diabetic retinopathy
```

```
ö
                                Gaps
                                ;
;
85.2%; Score 52; DB 4; Length 11; 72.7%; Pred. No. 0.064; 1.1ve 3; Mismatches 0; Indels
                             0; Indels
                               Conservative
                                                           1 CISVPLTSVPC 11
             Best Local Similarity
Matches 8; Conser
   Query Match
```

AAU04532 standard; peptide; 10 AA. RESULT 6
AAU04532
ED AAU0

|||:|:|||| CISLPISSVPC 11

ద

AAU04532;

(first entry) 26-SEP-2001

VEGF based monocyclic peptide 10.

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

Synthetic.

Location/Qualifiers Disulfide-bond

1. .10 /note= "This bond cyclises the peptide"

WO200152875-A1.

26-JUL-2001.

Cendron A;

Stacker S,

.8-JAN-2001; 2001WO-US001533.

18-JAN-2000; 2000US-0176293P.

Cendron A; Stacker S, Achen MG, Hughes RA,

(LUDW-) LUDWIG INST CANCER RES.

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

characterised by angiognesis, neovascularisation or lymphanglogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-rangioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to image blood vessels and lymphatic with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in with an anti-inflammatory agent, to treat a characterise in the periods are used to interfere the set also used in a mani-inflammatory agent, to treat a The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, neovascularisation or lymphangiogenesis in a mammal with a condition inflammation, especially rheumatoid arthritis, psoriasis diabetic retinopathy

74 6%; Score 45.5; DB 4; Length 10; llarity 90.9%; Pred. No. 0.69; Conservative 0; Mismatches 0; Indels Local Similarity les 10; Conserv Sequence 10 AA; Query Match Best Local Si Matches 10;

Gaps

;

Ŋ

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human vEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a cyclising the peptide hoop fragment from an exposed loop of a growth factor protein and cyclising the peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with a least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

The condition or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, postirecovery cerebrovascular accident, post-angioplasty restenosis, arthropathy, heat or cold trauma, substance-induced neovascular sequelae, nypertension induced neovascular sequelae, hypertension induced neovascular sequelae, credenosis, and the inver esquelae, hypertension induced neovascular sequelae, credenosis, and the mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to image bodd vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to image by WEGF. VEGF-C or -D and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                 Human, VEGF; vascular endothelial growth factor; angiogenesis; neoviascularisation; Umphangiogenesis; psoriassis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

    .9
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stacker S,
                                                                                                                                      AAU04533 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                             VEGF based monocyclic peptide 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JAN-2000; 2000US-0176293P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-MAY-2000; 2000US-0204590P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                     (first entry)
  CISVPLTSVPC 11
                    Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                     26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                              AAU04533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  residues
                                                                                                                 ઠ
                               g
```

```
;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to an active immunization against angiogenic proteins comprising administration of a vaccination composition (A), optionally consaining an adjuvant, that comprises polypeptides (I) directly associated with an increase in angiogenesis, their variants, or their encoding polynucleotides (II). Angiogenesis-associated polypeptides especially the 121, 165 or 189 isoforms of VEGF-A, the 167 isoform of VEGF-B, or VEGF-C or -D; a (co-) receptor of VEGF-A, the 167 isoform of VEGF-B, or VEGF-C or -D; a (co-) receptor of VEGF-A, the 167 isoform of yegren, or vegetor or veceptor of vEGF-A, the 167 isoform of yegren of vEGF-B, or vEGF-C or -D; a (co-) receptor of vEGF-A, the 167 isoform of yegren or veceptor of vEGF-B, or vEGF-C or -D; a (co-) receptor of vEGF-A, the 167 isoform of year of vEGF-B, or vEGF-C or -D; a (co-) receptor of vEGF-A, the 167 isoform of year of vEGF-B, or vEGF-C or -D; a (co-) receptor of vEGF-A, the 167 isoform of year of year of year of the vector in mammals, particularly humans but also farm animals and pets, also many other conditions associated with excessive angiogenesis, specifically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Active immunization against angiogenic proteins, useful for treating e.g. tumors and inflammation, particularly contains vascular endothelial growth factor or its receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ophthalmological; gynecological; antiarteriosclerotic; virucide; hepatotropic; dermatological; anti-HVV; antidiabetic; antipsoriatic; antirtheritic; antithyroid; immunization; angiogenesis; vascular endothelial growth factor; VEGF; neuropiln; placental growth factor; tumor; neoplasias; metastases; inflammation; autoimmunity; eye disease; arthritis; endometriosis; arteriosclerosis; edema; hepatitis; Kaposi sarcoma; diabetes; psoriasis; rhundacid arthritis; thyroiditis; diabetic retinopathy; transplant rejection; macular degeneration; neovascular glaucoma;
                                                                                                                                                                            Gaps
are also used in combination with an anti-inflammatory agent, to tree chronic inflammation, especially rheumatoid arthritis, psoriasis and diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human VEGF-D-derived peptide #18 for anti-angiogenesis treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antiangiogenic; cytostatic; antiinflammatory; immunosuppressive;
                                                                                                                                                                          ..
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gavilondo Cowley JV;
Silva Rodriguez RDLC;
Vazquez Blomquist DM
                                                                                                                                                                          0; Indels
                                                                                                                                    Length 9;
                                                                                                                               Score 41; DB 4; I
Pred. No. 1.8e+06;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (INGG-) CENT ING GENETICA & BIOTECNOLOGIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bequet Romero M, Acevedo Castro BE,
Fernandez Molina LE, Lopez Ocejo O,
Musachio Lasa A, Galban Rodriguez E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 18; 53pp; Spanish.
                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                      ADK65202 standard; peptide; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-APR-2003; 2003WO-CU000004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-APR-2002; 2002CU-00000076.
                                                                                                                               67.2%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                         Query Match
Best Local Similarity 81.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hemangioma; angiofibroma
                                                                                                                                                                                                                    1 CISVPLTSVPC 11
                                                                                                                                                                                                                                             1 CISVPL--VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-833615/77.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      402003086450-A1.
                                                                                       Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                   ADK65202;
                                                                                                                                                                                                                                                                                                                                RESULT 8
                                                                                                                                                                                                                                                                                                                                                      ADK65202
    883333
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                   ठ
```

ö

Gaps

```
malignant or benign neoplasias (and their metastases), acute or chronic inflammation, autoimmunity and eye diseases (claimed). Among the diseases that may be treated are arthritis, endometriosis, arterisclerosis, edema, infectious diseases (hepatitis, endometriosis arcoma), diabetes, psoriasis, rheumatoid arthritis, thyroiditis, diabetic retinopathy, transplant rejection, macular degeneration, neovascular glaucoma, hemangioma and angiofibroma. The method destroys calls that are the source of angiogenic proteins, rather than just neutralizing the activity of such proteins (as in passive immunization). This sequence represents an immunisation peptides of the invention derived from the VEGF proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to an active immunization against angiogenic proteins comprising administration of a vaccination composition (A), optionally containing an adjuvant, that comprises polypeptides (I) directly associated with an innorease in angiogenesis, their variants, or their encoding polynucleotides (II). Angiogenesis-associated polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Active immunization against anglogenic proteins, useful for treating e.g. tumors and inflammation, particularly contains vascular endothelial growth factor or its receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antiangiogenic; cytostatic; antiinflammatory; immunosuppressive; ophthalmological; gynecological; antiarteriosclerotic; virucide; hepatorropic; dermatological; anti-HIV; antidabetic; antibsoriatic; antiricthritic; anti-HIV; antidabetic; antioscriatic; antiarthritic; anti-HIV; antidation; angiogenesis; vascular endothelial growth factor; VEGF; neuropilin; placental growth factor; tumor; neoplasias; metastases; inflammation; autoimmunity; eye disease; arthritis; endometriosis; arteriosclerosis; edema; hepatitis; Kaposi arccoma; diabetes; psoriasis; rheumatoid arthritis; thyroiditis; diabetic retinopathy; transplant rejection; macular degeneration; neovascular glaucoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human VEGF-D-derived peptide #20 for anti-angiogenesis treatment.
                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gavilondo Cowley JV;
Silva Rodriguez RDLC;
Vazquez Blomquist DM;
                                                                                                                                                                                                                                                                          59.0%; Score 36; DB 7; Length 9; 100.0%; Pred. No. 1.8e+06; live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (INGG-) CENT ING GENETICA & BIOTECNOLOGIA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bequet Romero M, Acevedo Castro BE,
Fernandez Molina LE, Lopez Ocejo O,
Musachio Lasa A, Galban Rodriguez E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 18; 53pp; Spanish.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADK65204 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-APR-2002; 2002CU-00000076.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-APR-2003; 2003WO-CU000004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                             Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hemangioma; angiofibroma
                                                                                                                                                                                                                                                                                                                                                            2 ISVPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                  2 ISVPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-833615/77.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003086450-A1
                                                                                                                                                                                                                                     Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADK65204;
                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8888888888888888888
                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                            셤
```

```
cs are: members of the vascular endothelial growth factor (VEGF) family, especially the 121, 165 or 189 isoforms of VEGF-A, the 167 isoform of VEGF-B, or VEGF-C or -D; a (co-)receptor of VEGF-A, the 167 isoform of VEGF-I, c 2 or -3; NRP-1 or -2 (members of the neuropilin family); or placental cgrowth factor. (A) is used for treatment or prevention of tumors in mammals, particularly humans but also farm animals and pets, also many other conditions associated with excessive angiogenesis, specifically cally cally many neoplasias (and their metastases), acute or chronic inflammation, autoimmunity and eye diseases (claimed). Among the diseases that may be treated are arthritis, endometriosis, arteriosclerosis, dedema, infectious diseases (hepatitis and Kaposi sarrooma), diabetes, psoriasis, rheumatoid arthritis, thyroiditis, diabetic retinopathy, transplant rejection, macular degeneration, neovascular glaucoma, contant and magiofibroma. The method destroys cells that are the memory and angiofibroma. The method destroys cells that are the source of angiogenic proteins, rather than just neutralizing the activity of such proteins (as in passive immunization). This sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, VEGF; vascular endothelial growth factor; anglogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                 57.4%; Score 35; DB 7; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels

    .9
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAU04529 standard; peptide; 9. AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF based monocyclic peptide 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L8-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                   Query Match 57.4
Best Local Similarity 100.
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 VPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 VPLTSVP 7
                                                                                                                                                                                                                                                                                                                                                  Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04529;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU04529
         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

The sequence represents a monomeric monocyclic peptide of the invention,

```
whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclisaing the peptide by oxidiaing the cysteine residues. The monocyclic peptides, dimeric bicyclic peptide (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, cocyclisation or lymphanglogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphanglogenesis in a mammal with a condition characterised and acident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive
                                                                                                                                                                                                                                                                                                                                                                                                                                                       hormone-related angiogenic dysfunction, diabetes induced necessaries because, hypertension induced necessular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal nas a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF. Or -D and are also used in combination with an anti-inflammatory agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 9 AA;
```

52.5%; Score 32; DB 4; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels Query Match Best Local Similarity 100۰. نام 7; Conservative 3 SVPLTSV SVPLTSV ò g

ö

Gaps

;

AAR58418 standard; protein; 8 AA. (first entry) (revised) 25-MAR-2003 13-APR-1995 AAR58418;

Partial peptide 7 from TSAR C46.9-2 binding domain.

TSAR; totally synthetic affinity reagent; synthetic; binding domain; effector domain; concatenated heterofunctional protein; linker; direct rapid; detection; screening; treatment; monoclonal antibody; MAb; C46; anti-carcinoembryonic antigen; anti-CEA

Synthetic.

WO9418318-A1

18-AUG-1994.

94WO-US000977 93US-00013416 93US-00176500. 94US-00189331. 01-FEB-1994; 01-FEB-1993;

(UYNC-) UNIV NORTH CAROLINA.

31-JAN-1994;

Fowlkes DM; Kay BK, WPI; 1994-279739/34.

๙ Identifying proteins or peptide(s) which bind a ligand - by screening

```
AAR58412-42 are overlapping 8-mer peptides of the binding domain of TSAR (Totally Synthetic Affinity Reagents) peptide TSAR (46.9-2 (AAR58411).

These bind (partially) a monoclonal antibody, ie. anti-CEA (46 (anticatronal antigen). TSAR peptides are generated using generic carcinoembryonic antigen). TSAR peptides are generated using generic oligonucleotides (see AAQ70470-73 for examples). TSARs are concatenated heterofunctional proteins or peptides. Comprising at least two functional regions - a binding domain with affinity for a ligand and a second effector peptide portion that is chemically or biologically active. They may further comprise a linker peptide between the 2 domains. The TSARs or compsons. comprising a TSAR binding domain can be used in vivo to deliver comprising a TSAR binding domain can be used in vivo to deliver a chemically or biologically active moiety, eg. metal ion, radioisotope, peptide, toxin or enzyme, to the specific target or on the cell. They can also replace the function of macromolecules eg. monoclonal or polyclonal antibodies and therefore circumvent the need for complex methods of hybridoma formation or in vivo antibody production. The TSARs are easily characterised and have designed activity allowing direct and rapid detection in a screening process. (Updated on 25-MAR-2003 to correct PN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a nucleic acid molecule encoding an ovarian cancer antigen, CA125. Nucleic acid molecules, vaccine and methods are useful for diagnosing, preventing and treating cancer, e.g. pancreatic, lung, ovarian, breast or endometrial carcinoma. The invention is useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated nucleic acid molecule comprising sequences encoding the CA125 protein, useful for diagnosing, preventing and/or treating cance.g. ovarian, pancreatic, breast, endometrial or lung carcinomas.
recombinant vector library expressing fusion proteins comprising binding domain and an effector domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49.2%; Score 30; DB 2; Length 8; 62.5%; Pred. No. 1.8e+06; ive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CA125; antigen; cancer; gene therapy; vaccine; MUC16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SLOK ) SLOAN KETTERING INST CANCER RES
                                                                    Example 7.5; Page 108; 255pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CA125/MUC16 0-glycosylation site #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure, Page 19; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAE34703 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-MAY-2002; 2002WO-US014768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-MAY-2001; 2001US-0290480P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-129305/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best_Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVPLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200292836-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Inidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-NOV-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lloyd KO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE34703;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE34703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
```

ö

Gaps

ö

Length 10; 1; Indels

Score 30; DB 2;] Pred. No. 2.5e+02;

71.48; 49.28;

5; Conservative

1 CISVPLT 7 CINVPFT 8

် 셤

Best Local Similarity Matches 5; Conserv

Query Match

1; Mismatches

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequences given in AAW12551-70 represent core peptides of an src homology region 2 (SH2) binding peptide which correspond to the formula: 17-x28-x = any D- or 1. amino acid; 27 = phosphotyrosine or its isostere: 28 = asparagine or its isostere; the amino terminus is acylated, and the peptide is less than 14 residues in length, with the provise that if Z7 is phosphotyrosine and 28 is asparagine, then the peptide is not GDG27x28xPLL. SH2 binding peptides containing these core peptides are used to treat of diagnose diseases associated with aberrant cell growth, differentiation or regulation which is associated with aberrant defects in receptor tyrosine kinase pathways, by partially blocking or inhibiting a cellular signal transduction pathway. The disease may be cancer, a developmental or differentiation disease or insulin-resistant (or non-insulin dependent) diabetes
   in gene therapy and as vaccines. The present sequence is CA125/MUC16 Oglycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Core peptide; src homology region 2 binding peptide; SH2; cell growth, differentiation; regulation; receptor tyrosine kinase pathway; cancer; signal transduction pathway; non-insulin dependent diabetes; insulin-resistant diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "given in the patent as pI, no further details given. May be intended to be phosphotyrosine"
                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide(s) which bind to SH2 domains - are used to treat diseases associated with aberrant cell growth, differentiation or regulation associated with defects in receptor tyrosine kinase pathways.
                                                                                                                                                                                                                            ;
0
                                                                                                                                                      Score 30; DB 6; Length 9;
Pred. No. 1.8e+06;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Grove JR, Hart CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SH2 binding peptide core sequence #11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW12561 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gordon E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 8; Page 116; 203pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AFFY-) AFFYMAX TECHNOLOGIES NV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96WO-US001544.
                                                                                                                                                            49.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95US-00382100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                      6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gordeev MF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     given.
                                                                                                                                                                                                                                                                               3 SVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1996-371373/37.
                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                         SVPTTSTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Szardenings AK;
                                                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9623813-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-AUG-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Δ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW12561;
                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13

AAM12561

ID AAM12561

XX

XX

AAM12561

DT 08-API2

XX

COFE

XW

GIFFE

WH GIFFE

WH GIFFE

WH GOFFE

WH GOFF

WH GOFFE

WH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patel
                                                                                                                                                                                                                   Matches
SSXS
                                                                                                                                                                                                                                                                               ð
```

Core peptide; src homology region 2 binding peptide; SH2; cell growth; differentiation; regulation; receptor tyrosine kinase pathway; cancer; signal transduction pathway; non-insulin dependent diabetes; insulin-resistant diabetes.

SH2 binding peptide core sequence #21.

(first entry)

08-APR-1997

AAW12615;

AAW12615 standard; peptide; 11 AA.

RESULT 14

Kim MH;

Grove JR, Hart CP,

Gordon E,

Gordeev MF,

Szardenings AK;

Ω,

Patel

WPI; 1996-371373/37.

(AFFY-) AFFYMAX TECHNOLOGIES NV

95US-00382100,

01-FEB-1995;

31-JAN-1996;

WO9623813-A1

Synthetic.

08-AUG-1996.

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence represents a core peptide of an src homology region 2 (SH2) binding peptide corresponding to the formula: Z7-X-Z8-X X = any D- or L-amino acid; Z7 = phosphotyrosine or its isoster; Z8 = asparagine or its isostere; the amino terminus is acylated, and the peptide is less than 14 residues in length, with the proviso that if Z7 is phosphotyrosine and Z8 peptides in length, with the proviso that if Z7 is phosphotyrosine and Z8 peptides containing this core peptide are used to treat of diagnose diseases associated with aberrant cell growth, differentiation or regulation which is associated with defects in receptor tyrosine kinase pathways, by partially blocking or inhibiting a cellular signal transduction pathway. The disease may be cancer, a developmental or differentiation disease or insulin-resistant (or non-insulin dependent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide(s) which bind to SH2 domains - are used to treat diseases associated with aberrant cell growth, differentiation or regulation associated with defects in receptor tyrosine kinase pathways.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'Match 49.2%; Score 30; DB 2; I Local Similarity 71.4%; Pred. No. 2.8e+02; les 5; Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 13; Page 117; 203pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 CINVPFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

Sequence 10 AA;

```
This invention relates to a novel polypeptide encoded by an alternative reading frame of a pathogenic virus, where the polypeptide starts with a methionine amino acid residue, which compyrises an antigionic determinant and more than 7 amino acid residues. The invention may be useful for the production of compounds with a virucide activity or the development of a vaccine. The polypeptide or its fragments may be useful as a therapeutic agent. It is also useful for the manufacture of a medicament for treating or preventing an infection with the pathogenic virus. The present sequence is that of a hepatitis C virus CTL epitope peptide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polypeptide encoded by an alternative reading frame of a pathogenic virus comprising an antigenic determinant, useful for treating or preventing an infection with the pathogenic virus.
                                                                                                                                                            pathogenic virus; alternative reading frame; antigenic determinant; virucide; vaccine; therapeutic agent; infection; epitope peptide; HLA-allele; CTL.
                                                                                                                               Hepatitis C virus CTL epitope peptide #4272.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 14; Page 139; 220pp; English.
                                 ADK06442 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Habel A;
                                                                                                                                                                                                                                                                                                                                                          24-JUL-2002; 2002AT-00001124.
11-JUL-2003; 2003EP-00450171.
                                                                                                                                                                                                                                                                                                                            24-JUL-2003; 2003WO-EP008112.
                                                                                               06-MAY-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                           Schmidt W,
                                                                                                                                                                                                                                                                                                                                                                                                           (INTE-) INTERCELL AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-169243/16.
                                                                                                                                                                                                                            Hepatitis C virus
                                                                                                                                                                                                                                                            WO2004011650-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 9 AA;
                                                                                                                                                                                                                                                                                            05-FEB-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Mattner F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention.
                                                                 ADK06442;
```

; 0

Gaps

;

Score 29; DB 8; Length 9; Pred. No. 1.8e+06; 4; Mismatches 0; Indels

47.5%; 50.0%;

Query Match Best Local Similarity

4; Conservative

CISVPLTS 8 |:-|:|:|:| CLSLPVSS 8

8 8

Search completed: April 1, 2005, 11:08:15 Job time : 119 secs

(OT92U) MMAJ8 32A9 SIHT

Sequence

Sequence 11221, A Sequence 11228, A Sequence 11228, A Sequence 11259, A Sequence 11259, A Sequence 11259, A Sequence 11259, A Sequence 11269, A Sequence 20, Appl Sequence 101, Appl Sequence 10, Appl Sequence 11, Appl Sequence 12, Appl Sequence 11, Appl Sequence 11, Appl Sequence 12, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 28, Appl Sequence 11, Appl Sequence 28, Appl Sequence 28, Appl Sequence 28, Appl

Scoring table:

Searched:

Database

Perfect score:

Sequence:

OM protein

Run on:

```
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 7
TENENT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 61; DB 9; Length 11
100.0%; Pred. No. 0.0022;
tive 0; Mismatches 0; Indels
US-10-398-104-156
US-10-154-884B-11221
US-10-154-884B-11228
US-10-154-884B-11228
US-10-154-884B-11228
US-10-154-884B-11254
US-10-154-884B-11254
US-10-154-884B-11255
US-10-154-884S-125
US-10-16-275-100
US-10-16-278-315-52
US-10-16-278-315-52
US-10-16-278-315-52
US-10-16-278-315-52
US-10-16-278-315-52
US-10-16-278-315-52
US-10-16-278-315-52
US-10-16-278-315-52
US-10-386-315-53
US-09-764-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 7, Application US/09761636A Patent No. US20020065218A1 GENERAL INFORMATION:
      Best Local Similarity 100.
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
     RESULT 2
US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-761-636A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-761-636A-7
     Query Match
      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 7, Appli
Sequence 24, Appl
Sequence 24, Appl
Sequence 25, Appl
Sequence 13, Appl
Sequence 14, Appl
Sequence 14, Appl
Sequence 312, Appl
Sequence 312, Appl
Sequence 312, Appl
Sequence 318, Appl
Sequence 89, Appl
Sequence 89, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 81, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                               April 1, 2005, 11:04:25 ; Search time 45 Seconds (without alignments) 81.056 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUDIL BRIEGA APPLICATIONS AND TO THE COMB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US07_PUBCOMB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US07_NEW_PUB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US06_PUBCOMB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US07_NEW_PUB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US08_PUBCOMB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US09_PUBCOMB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US09_NEW_PUB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US09_NEW_PUB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US09_NEW_PUB. DED: *

(SGNZ_6/ptodata/2/pubpaa/US108_PUBCOMB. 
                                                                                                                                                                                                                                                                                                                                           193427
                    GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-761-636A-7
US-09-761-636A-23
US-09-761-636A-24
US-09-761-636A-25
US-09-761-636A-13
US-09-761-636A-13
US-09-761-636A-14
US-09-761-636A-14
US-09-761-636A-14
US-10-245-871-332
US-10-245-871-332
US-10-245-871-332
US-10-253-286-332
US-10-126-845-89
                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                          1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published Applications AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                       - protein search, using sw model
                                                                                                                                                                                                                                                                         Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                   US-09-761-636A-7
61
                                                                                                                                                                                                                        1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 11
                                                                                                                                                                                                                                                           BLOSUM62
```

Sequence 249, Sequence 322,

ò

Gaps

..

61 59 57 54 52 45.5

Score

Result Š

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Faceuence 25, Application US/09761636A
Fatent No. US20020065218A1
GENERAL INFORMATION
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VGGP-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPREBRUE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2000-01-01
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTI VORENTI OF SEQ ID NOS: 34
SEQ ID NO 25
FENCE IN TOTAL OF SEQ ID NOS: 34
SEQ ID NO 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                           APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 13, Application US/09761636A
Patent No. US20020065218A1
Patent No. US20020065218A1
APPLICANT: ACHEN, Marc
APPLICANT: HUGHES, Richard
APPLICANT: CENDROM, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
                                                                                                                                                                                                                                                                                                                                                                                                                Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                              DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 52; DB 9;
Pred. No. 0.063;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                              Score 54; DB 9;
Pred. No. 0.03;
                                                                                       CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
NUMBER OF SEQ ID NOS: 34
SEQ ID NO 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                              88.5%;
                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT; ORGANISM: synthetic construct
US-09-761-636A-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 72.7%;
Matches 8; Conservative
         HUGHES, Richard
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 72.7
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||::||||:||
1 CITIPLTSLPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |||:|::||||
CISLPISSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-761-636A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-13
         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 26, Application US/09761636A

Sequence 26, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:
APPLICANT: ACHEN, Marc

APPLICANT: ACHEN, Marc

APPLICANT: CENDRON, Angela

TILLE OF INVENTION: VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REPERENCE: 1064 48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT APPLICATION NUMBER: US/09/761,636A

PRIOR PILING DATE: 2000-01-18

PRIOR APPLICATION NUMBER: US/01/76,293

PRIOR APPLICATION NUMBER: US/06/176,293

PRIOR APPLICATION NUMBER: US/06/176,293

PRIOR PILING DATE: 2000-01-16

PRIOR PILING DATE: 2000-01-16

NUMBER OF SEQ ID NOS: 34

SEQ ID NO 26

SEQ ID NO 26
                                                       APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, ADER
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
TITLE OF INVENTION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SSOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 59; DB 9; Length 11;
Pred. No. 0.0046;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 57; DB 9; Length 11;
Pred. No. 0.0098;
2; Mismatches 0; Indels
Sequence 23, Application US/09761636A
Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 24, Application US/09761636A
Patent No. US20020065218A1
GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 90.9%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CLSVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVSVPLTTVPC 11
                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-09-761-636A-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
US-09-761-636A-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-761-636A-26
                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 23
```

ठ g ô

Matches

d à

ô

셤

```
Sequence 332, Application US/10253286
; Sequence 332, Application US/10253286
; Publication No. US2004005881A1
; GENERAL INFORMATION:
; APPLICANT: HUMPHERYS, ROBERT
; APPLICANT: HUMPHERYS, ROBERT
; APPLICANT: WINZHEN
; TILE OF INVENTION: II-ERY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
; TILE REFERENCE: REH-2015
; CURRENT APPLICATION NUMBER: US/10/253,286
; CURRENT FILING DATE: 2003-01-13
; PRIOR PLILING DATE: 2003-07-17
; PRIOR APPLICATION NUMBER: 09/396,813
; PRIOR PLILING DATE: 1999-09-14
; NUMBER OF SEQ ID NOS: 905
; SOFTWARE: PATENTIN VET: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 332, Application US/10245871
Fublication No. US20030235594A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: HUMPHREYS, ROBERT
APPLICANT: TULE OF INVENTION: II-KEY/ANTIGENIC EPITOPE HYBRID PEPTIDE VACCINES
FILE REPERENCE: REH-2013
FILE REPERENCE: REH-2013
CURRENT APPLICATION NUMBER: US/10/245,871
CURRENT FILING DATE: 2003-01-09
FRIOR APPLICATION NUMBER: 10/197,000
FRIOR FILING DATE: 2002-07-17
FRIOR APPLICATION NUMBER: 09/396,813
FRIOR FILING DATE: 1999-09-14
SEQ ID NOS: 905
SEQ ID NO 332
                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 9;
                                                                                                                                                                          52.5%; Score 32; DB 9; Length 9; 100.0%; Pred. No. 1.3e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 29; DB 15;
Pred. No. 1.3e+06;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47.5%; Score 29;
  NUMBER OF SEQ ID NOS: 34
SOFTWARE: PatentIn version 3.0
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h
Similarity 71.4%;
5; Conservative 1
                                                                                                                                                                          Query Match 52.5
Best Local Similarity 100.
Matches 7; Conservative
                                                                   LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 VPLTSVP 10
                                                                                                                                                                                                                                                                  3 SVPLTSV 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                    US-09-761-636A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-10-253-286-332
                                                                                                                                                                                                                                                                                                                                                                                             US-10-245-871-332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-253-286-332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-245-871-332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                          а
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                   ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ï
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application US/09761636A
; Sequence 14, Application US/09761636A
; Patent No. US20202065218A1
; GENERAL INFORMATION:
; APPLICANT: ACHEN, Marc
; APPLICANT: STACKER, Steven
; APPLICANT: GENERAL STACKER, Steven
; APPLICANT: CENDROW, Angel a
; TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
; FILE REFRENCE: 1064/48505 Achen et al
; CURRENT APPLICATION NUMBER: US/09/761,636A
; CURRENT PILING DATE: 2001-01-18
; PRIOR APPLICATION NUMBER: US 60/176,293
; PRIOR APPLICATION NUMBER: US 60/204,590
; PRIOR FILING DATE: 2000-01-18
; PRIOR APPLICATION NUMBER: US 60/204,590
; REGO ID NOS: 34
; SEQ ID NOS: 34
; SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8

US-09-761-636A-10

Sequence 10, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:

APPLICANT: ACHEN, Marc

APPLICANT: STACKER, Steven

APPLICANT: GENERO, Angela

TITLE OF INVENTION Angela

TITLE OF INVENTION UNDER: US/09/761,636A

CURRENT FILING DATE: 2000-01-18

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR PILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-05-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                   ä
                                                                                                                                                                                                                                                                                      Score 45.5; DB 9; Length 10; Pred. No. 0.65;
                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67.2%; Score 41; DB 9; Length 9; 81.8%; Pred. No. 1.3e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                 Mismatches
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                      74.6%;
90.9%;
                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 90.5
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Conservative
                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||||||| ||| CISVPL--VPC 9
                                                                                                                                                                                            TYPE: PRT; ORGANISM: Homo sapiens
US-09-761-636A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
US-09-761-636A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-761-636A-14
                                                                                                                                                    SEQ ID NO 13
LENGTH: 10
```

ઠે 셤

|: ||| | 1 CLLVPLLVAAC 11

엄

ö

0; Gaps

71.4%; Pred. No. 1.3e+06; tive 1; Mismatches 1; Indels

Best Local Similarity 71.9 Matches 5; Conservative

```
Query Match
Best Local Similarity 27.3
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |:::|
| CVTIPYRGTQC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION
                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 дq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                         APPLICANT: Biokine Therapeutics Ltd.
APPLICANT: Peled, Amnon
APPLICANT: Escaberg, Orly
APPLICANT: Escaberg, Orly
APPLICANT: Vaizel-Ohayon, Dalit
TITLE OF INVENTION: NOVEL CHEMOKINE BINDING PEPTIDES CAPABLE OF MODULATING THE
TITLE OF INVENTION: BIOLOGICAL ACTIVITY OF CHEMOKINES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: O'Mahony, Daniel J.
APPLICANT: Lambkin, Imelda J.
APPLICANT: Lambkin, Imelda J.
APPLICANT: Lambkin, Imelda J.
APPLICANT: Houghten, Richard
TITLE OF INVENTION: MEMBRANE TRANSLOCATING PEPTIDE DRUG DELIVERY SYSTEM
FILE REFERENCE: E1067/20058
CURRENT FILING DATE: 2002-10-15
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin version 3.1
SEQ ID NO 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
47.5%; Score 29; DB 14; Length 11;
Best Local Similarity 45.5%; Pred. No. 3.46+02;
Matches 5; Conservative 1; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 29; DB 16; Length 9; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: MISC_FEATURE
LOCATION: (1). (11)
OTHER INFORMATION: D form retroinversion peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 26732
CURRENT APPLICATION NUMBER: US/10/649,873
CURRENT FILING DATE: 2003-08-28
NUMBER OF SEQ ID NOS: 157
SOFTWARE: Patentin version 3.2
SEQ ID NO 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:

CTHER INFORMATION: Synthetic peptide
US-10-649-873-38
                                                                                                                                                Sequence 38, Application US/10649873
Publication No. US20040171552A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 89, Application US/10126845
Publication No. US20030181367A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: D form peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    47.5%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4; Conservative
4 VPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 PLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 4; Conserv
                            2 VPITSTP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 PFTKLPC 9
                                                                                                                          US-10-649-873-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-10-126-845-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-126-845-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                g
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

1 CISVPLTSVPC 11

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 29; DB 15; Length 11;
Pred. No. 3.4e+02;
3; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , OTHER INFORMATION: LOS peptide mimotope sequence US-10-398-104-155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; FEATURE:
; OTHER INFORMATION: LOS peptide mimotope sequence
US-10-398-104-156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 29; DB 15;
Pred. No. 3.4e+02;
                                                                                                                                                         APPLICANT: Mertens, Pascal Yvon
APPLICANT: Poolman, Jan
APPLICANT: Poolman, Jan
APPLICANT: Poolman, Jan
APPLICANT: Voet, Pierre
FILE REFERENCE: B45242
CURRENT APPLICATION NUMBER: US/10/398,104
CURRENT FILING DATE: 2003-01-04
PRIOR APPLICATION NUMBER: PCT/EPO1/11409
PRIOR FILING DATE: 2001-10-03
PRIOR FILING DATE: 2001-10-03
NUMBER OF SEQ ID NOS: 352
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 155
LENGTH: 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: De BOlle, Xavier Thomas
APPLICANT: Letesson, Jean-Jacques
APPLICANT: Letesson, Jean-Jacques
APPLICANT: Lobet, Yves
APPLICANT: Mertens, Pascal Yvon
APPLICANT: Poolman, Jan
APPLICANT: Voet, Pierre
TILE REFERENCE: B45242
CURRENT APPLICATION NUMBER: US/10/398,104
CURRENT FILING DATE: 2003-01-04
PRIOR PILING DATE: 2001-10-03
PRIOR PILING DATE: 2001-10-03
PRIOR FILING DATE: 2001-10-03
PRIOR FILING DATE: 2001-10-03
NUMBER: OF SEQ ID NOS: 352
SEQ ID NO 156
S-10-398-104-155
Sequence 155, Application US/10398104
Publication No. US20040047880A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 156, Application US/10398104
Publication No. US20040047880A1
                                                                                                                    Letesson, Jean-Jacques
Lobet, Yves
                                                                                           APPLICANT: De Bolle, Xavier Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    47.5%;
27.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 36.4%;
```

```
ö
ö
Gaps
                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                             ;
0
ö
                                                                                                                                                                                                                                                                                                Query Match 45.9%; Score 28; DB 15; Length 9; Best Local Similarity 57.1%; Pred. No. 1.3e+06; Matches 4; Conservative 3; Mismatches 0; Indels
Indels
5;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                   Search completed: April 1, 2005, 11:12:08 Job time : 45 secs
4; Conservative
          1 CISVPLTSVPC 11
                  | : | : ||
1 CFAPPYDPLPC 11
                                                                                                                                                                                                                                                                    LENGTH: 9
TYPE: PRT
CRGANISM: Homo sapiens
US-10-154-884B-11221
                                                                                                                                                                                                                                                                                                                        1 CISVPLT 7
                                                                                                                                                                                                                                                                                                                                   2 ČLŠVPVS 8
Matches
           ઠ
                     셤
                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                   유
```

THIS PAGE BLANK (USPTO)

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 63, Appl
Sequence 63, Appl
Sequence 63, Appl
Sequence 2, Appli
Sequence 2, Appli
Sequence 70, Appl
Sequence 10, Appl
Sequence 219, Appl
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 24, Appl
Sequence 116, App
Sequence 27, Appl
Sequence 183, Appl
Sequence 183, Appl
Sequence 11, Appl
Sequence 183, Appl
Sequence 183, Appl
Sequence 183, Appl
                                                                                                                                                                                                                                                                      April 1, 2005, 10:06:39 ; Search time 43 Seconds (without alignments) 22.568 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-258-754-63

US-09-042-107-63

US-09-672-2500-63

US-09-676-475A-63

US-08-170-114A-2

US-08-160-92-70

US-09-160-513-70

US-09-160-513-70

US-09-160-513-70

US-09-160-513-70

US-09-160-513-70

US-09-100-219

US-09-72-250D-219

US-09-72-250D-219

US-09-742-110

US-09-742-110

US-09-676-475A-219

US-09-68-65-110

US-09-110

US-09-110

US-09-110

US-09-110

US-09-127-111

US-09-128-116

US-09-128-116

US-09-128-116

US-09-128-116

US-09-128-116

US-09-128-116

US-09-128-116

US-09-128-116

US-09-138-116

US-09-138-116

US-09-141-183

US-09-183-116

US-09-183-116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    513545 seqs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                       protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-761-636A-5
72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \begin{array}{c} \mathbf{u} \ \mathbf{
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .........
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
                                                                                                                                                                                       OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                                                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š.
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-258-754-63
US-09-258-754-63
; Sequence 63, Application US/09258754
; Patent No. 6174687
; GENERAL INFORMATION:
; APPLICANT: Radolathi, Erkki
; APPLICANT: Rajotte, Daniel
; TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
; TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
; TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
; TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules
; FILE REFERENCE: P-LJ 3443
; CURRENT APPLICATION NUMBER: US/09/228, 754
; CURRENT FILING DATE: 1999-02-26
; EARLIER PAPLICATION NUMBER: 09/042,107
; NUMBER OF SEQ ID NOS: 452
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 63
                                                        77, Appli
150, Appli
151, App
151, App
151, App
151, App
151, App
151, App
164, App
30, Appl
30, Appl
31, Appl
30, Appl
31, Appl
30, Appl
31, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 63, Application US/09042107

Sequence 63, Application US/09042107

GENERAL INFORMATION:

APPLICANT: Robelahti, Erkki

APPLICANT: Reagualini, Renata

TITLE OF INVENTION: Molecules that Home to Various Selected Organs or

TITLE OF INVENTION: Tissues

FILE REFERENCE: P-LJ 2892

CURRENT APPLICATION NUMBER: US/09/042,107

CURRENT FILING DATE: 1998-03-13

NUMBER OF SEQ ID NOS: 436

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 63

LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                            Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
        Sequence
Sequence
                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-258-754-63
                                                             Seguence
                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 71.4%; Pred. No. 4.1e+05; 5; Conservative 1; Mismatches 1; Indels
US-07-732-114A-6
US-08-170-114A-6
US-08-645-193B-7
US-08-660-092-151
US-08-660-092-151
US-08-660-092-151
US-09-160-513-152
US-09-160-513-152
US-09-160-513-152
US-09-160-513-154
US-09-160-513-154
US-09-160-513-152
US-09-160-513-152
US-09-160-513-153
US-09-174-072-31
                                                                                                                                                                                                                                                                                                                                                                                                                                               PCT-US95-03239-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 KSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :|||| |
RSTNTGC 9
  RESULT 2
US-09-042-107-63
```

```
ઠે
                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4

US-09-676-475A-63

US-09-676-475A-63

Sequence 63. Application US/09676475A

Patent No. 6784153

GENERAL INFORMATION:

APPLICANT: Racotalahti, Brkxi

APPLICANT: Racotalahti, Branta

APPLICANT: Racotalahti, Branta

APPLICANT: Rajotte, Daniel

TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using

TITLE OF INVENTION: Membrane Dipeptidase

FILE REFERENCE: P-LA 437.

CURRENT APPLICATION NUMBER: US/09/676,475A

CURRENT FILING DATE: 1998-03-13

PRIOR FILING DATE: 1998-03-13

SOFTWARE: PRECENTIN Ver. 2.0

SEQ ID NOS: 452

SEQ ID NO 63

EINGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 63, Application US/0972250D
| Patent No. 661061
| Patent No. 661061
| GENERAL INFORMATION:
| APPLICANT: Rucelahti, Erkki
| APPLICANT: Pasqualini, Renata
| TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
| TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
| TITLE OF INVENTION: Plastes
| FILE REPRENCE: P.1J 4514
| CURRENT APPLICATION NUMBER: US/09/722,250D
| CURRENT FILING DATE: 1998-03-13
| NUMBER OF SEQ ID NOS: 437
| SOFTWARE: PatentIn Ver. 2.0
| SEQ ID NO 63
| LENGTH: 9
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:

OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-676-475A-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-722-250D-63
                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38.9%; Score 28; DB 4; Length 9; 71.4%; Pred. No. 4.1e+05; tive 1; Mismatches 1; Indels
                                                                                                                                             Score 28; DB 3; Length 9;
Pred. No. 4.1e+05;
1; Mismatches 1; Indels
                                                                                                                                             38.9%;
Similarity 71.4%;
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 38.9
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                              7 KSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 KSTNTFC 13
                                                                                                                                                                    Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                          RSTNTGC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 RSTNTGC 9
                                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-09-722-250D-63
                                                                             ; OTHER INFORM!
US-09-042-107-63
                                                                                                                                                Query Match
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 13;
    Score 28; DB 4; Length 9; Pred. No. 4.1e+05; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Indels
                                                                                                                                                                                                                 Sequence 2, Application US/07732114A
Patent No. 5298396
GENERAL INFORMATION:
APPLICANT: MARRACK, PHILIPPA
APPLICANT: MARRACK, PHILIPPA
APPLICANT: PALIARD XAVIER
TITLE OF INVENTION: METHOD FOR IDENTIFYING T CELLS
TITLE OF INVENTION: INVOLVED IN AUTOIMMUNE DISEASE
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
COMPUTER: IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Beaton & Swanson, P.C.
STREET: 4582 South Ulster Street Parkway, #403
CITY: Denver
STATE: Colorado
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 27; DB 1; I
Pred. No. 2.9e+02;
1; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IDENCELE, 5.25 INCH, 350 COMPUTER: IDENCEDELE, 5.25 INCH, 350 COMPUTER: WAS COMPATIBLE OPERATING SYSTEM: MS-DOS SOSTWARE: WATCHERE WAS COFTWARE: WATCHERE WAS CONTREAST OF THING DATE: 18-JULY-1991 CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/489,353 FRIUNG DATE: 2-MARCH-1990 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/437,370 PRIOR APPLICATION NUMBER: 07/437,370 ATTONEY, AGENT INFORMATION: NAME: BALTY J. SWARRON REGISTRATION NUMBER: 33,215 PRIOR APPLICATION NUMBER: 33,215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-170-114A-2; Sequence 2, Application US/08170114A; Patent No. 5776708; GENERAL INFORMATION: APPLICANT: MARRACK, PHILIPPA; APPLICANT: MARRACK, PHILIPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
h 38.9%;
Similarity 71.4%;
5; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (303) 850-9900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (303) 850-9401
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 13 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CASSLYGTRNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                  7 KSTNTFC 13
Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                         :|||| |
3 RSTNTGC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                 RESULT 5
US-07-732-114A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-07-732-114A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
```

```
APPLICANT: Victoria, Edward J.
APPLICANT: Victoria, David M.
APPLICANT: Marquis, David M.
APPLICANT: Jones, David S.
APPLICANT: Jones, David S.
APPLICANT: Yu, Lin
TITLE OF INVENTION: aPL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS O
NUMBER OF SEQUENCES 125
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36.1%; Score 26; DB 3; Length 9; 71.4%; Pred. No. 4.1e+05; tive 0; Mismatches 2; Indels
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
COMPUTER: TBM PC Compatible
COMPUTER: TBM PC Compatible
COMPAGE: PATENT Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/660,092
FILING DATE: 06-JUN-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: PATK, Freddie K.
REGISTRATION NUMBER: 35,636
REFERENCE/POCKET UNMBER: 25.31-20061.20
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRA: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

SOFTWARE: 1998-DEC-24

FLING DATE: 1998-DEC-24

CLASSIFICATION NUMBER: US/09/160,513

FLICH DATION:

NAME: CATHERINE W POLIZZI

REGISTRATION NUMBER: 25231-20061.01

TELEPHONE: (650) 813-560

TELEPHONE: (650) 494-0792

TELEPHONE: (650) 494-0792

TELEPHONE: (650) 494-0792

TELEPHONE: (650) 494-0792

TELEPHONE: (650) 813-560

TELEPHONE: (650) 813-560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 70, Application US/09160513
Patent No. 6410775
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 706141
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 36.1
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 755 TTY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CASELGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CAGVLGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
US-09-160-513-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-660-092-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 70, Application US/08660092

Patent No. 6207160

GENERAL INFORMATION:

APPLICANT: Wictoria, Edward J.

APPLICANT: Wictoria, David M.

APPLICANT: You Lin

APPLICANT: You Lin

TITLE OF INVENTION: THEREOF AND METHODS OF TREATMENT FOR aPL ANTIBODY-MEDIATED TITLE OF INVENTION: PATHOLOGIES

NUMBER OF SEQUENCES: 216

CORRESPONDENCE ADDRESS:

ADDRESSEE: MORRISON & FOERSTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37.5%; Score 27; DB 1; Length 13; 54.5%; Pred. No. 2.9e+02; tive 1; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Biskette, 3.5 inch, 1.44 MB storage COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS OPERATING SYSTEM: MS-DOS CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/170,114A
FILING DATE: 20-DECEMBER-1993
CLASSIFTCATION NATA:
APPLICATION NUMBER: 07/732,114
FILING DATE: 18-UULY-1991
FILING DATE: 2-MARCH-1990
FILING DATE: 18-UULY-1991
FILING DATE: 18-UULY-1990
FILING DATE: 1-NOVEMBER: 07,438,353
FILING DATE: 15-NOVEMBER-1989
ATPLICATION NUMBER: 07,437,370
FILING DATE: 15-NOVEMBER: 36,450
REGISTRATION NUMBER: 36,450
REFERENCE/DOCKET NUMBER: NJH217.3
TELECOMMUNICATION HUMBER: NJH217.3
                                         APPLICANT: PALIARD, XAVIER
TITLE OF INVENTION: METHOD FOR IDENTIFYING T CELLS
TITLE OF INVENTION: INVOLVED IN AUTOIMMUNE DISEASE
                                                                                                                                          NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
STREET: Swanson & Bratschun, L.L.C.
STREET: B400 E. Prentice Avenue, Suite 200
CITY: Englewood
STATE: Colorado
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: MORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD
CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (303) 793-3333
TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match
Best Local Similarity 54.5
Best Local 6, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CASSLYGTRNT 11
             KAPPLER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94304-1018
                                                                                                                                                                                                                                                                                                                                                                                ZIP: 80111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-170-114A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-08-660-092-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
```

셤

ö

Gaps

```
7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 26; DB 4; I
Pred. No. 4.2e+02;
2; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: CALMODULIN ANTAGONIST PEPTIDE US-09-428-082B-170
        2; Mismatches
                                                                                                                                                                                  Sequence 219, Application US/09722250D Patent No. 6610651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 170, Application US/09428082B Patent No. 6660843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.1%;
30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
                                              1 CASELGKSTNTFC 13
                                                                                 1 CGSHCGOLCKSLC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CGSHCGQLCKSLC 13
      4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 NTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 NTFC 11
                                                                                                                                                               US-09-722-250D-219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
US-09-428-082B-170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                            ò
                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                         RESULT 9
US-09-258-754-219
i Sequence 219, Application US/09258754
j Patent No. 6174687
j GENERAL INFORMATION:
i APPLICANT: Rusolahti, Brkki
APPLICANT: Rajotte, Daniel
i TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
TITLE OF INVENTION: Membrane Dipeptidase
j TITLE OF INVENTION: Membrane Dipeptidase
j TITLE OF ILING DATE: 1999-02-26
j CURRENT APPLICATION NUMBER: US/09/258,754
j CURRENT APPLICATION NUMBER: 09/042,107
j EARLIER PILING DATE: 1998-03-13
j NUMBER OF SEQ ID NOS: 452
j SOFTWARE: PatentIn Ver. 2.0
j SEQ ID NO 219
j LENGTH: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-042-107-219

| Sequence 219, Application US/09042107
| Patent No. 6232287
| Patent No. 6232287
| GENERAL INFORMATION:
| APPLICANT: Ruoslahti, Erkki
| APPLICANT: Pasquallini, Renata
| TITLE OF INVENTION: Molecules that Home to Various Selected Organs or TITLE OF INVENTION: Tissues
| FILE REPERENCE: P-LJ 2892
| FILE REPERENCE: P-LJ 2892
| CURRENT APPLICATION NUMBER: US/09/042,107
| CURRENT APPLICATION NUMBER: US/09/042,107
| NUMBER OF SEQ ID NOS: 436
| SOFTWARE: PatentIn Ver. 2.0
| SEQ ID NO 219
| LENGTH: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-258-754-219
                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ) OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-042-107-219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36.1%; Score 26; DB 3; Length 13; 30.8%; Pred. No. 4.2e+02; Live 2; Mismatches 7; Indels
                                                                                                                   36.1%; Score 26; DB 4; Length 9; 71.4%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 26; DB 3; Pred. No. 4.2e+02;
                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36.1%;
30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                               Query Match
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGSHCGQLCKSLC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4; Conservative
                  single
                                 TOPOLOGY: linear;
MOLECULE TYPE: peptide
US-09-160-513-70
amino acid
                                                                                                                                                                                                 1 CASELGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                    1 CAGVLGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
GENERAL INCORNATION:
APPLICANT: Ruoslahti, Erki
APPLICANT: Pasqualini, Renata
APPLICANT: Pasqualini, Renata
TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
TITLE OF INVENTION: Tissues
FILE REFERENCE: P-LJ 4514
CURRENT APPLICATION NUMBER: US/09/722,250D
CURRENT FILING DATE: 2000-11-22
PRIOR APPLICATION NUMBER: US 09/042,107
PRIOR APPLICATION NUMBER: US 09/042,107
NUMBER OF SEQ ID NOS: 437
SEQ ID NOS: 437
SEQ ID NO 219
SEQ ID NO 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-722-250D-219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: FEIGE, ULRICH
APPLICANT: FEIGE, ULRICH
APPLICANT: CHEETHAM, JANET C.
APPLICANT: CHEETHAM, JANET C.
TITLE OF INVENTION: MODIFIED PEPTIDES AS THERAPEUTIC AGENTS
TITLE OF INVENTION: NUMBER: US/09/428,082B
CURRENT APPLICATION NUMBER: 06/105,371
PRIOR APPLICATION NUMBER: 60/105,371
PRIOR APPLICATION NUMBER: 60/105,371
PRIOR FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 1133
SOFTWARE: PALENTIN VERSION 3.1
LENGTH: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 36.1%; Score 26; DB 4; Length 13; Best Local Similarity 100.0%; Pred. No. 4.2e+02; Matches 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7; Indels
```

```
GENERAL INFORMATION:
APPLICANT: Kupke, Thomas
APPLICANT: Kupke, Thomas
APPLICANT: Gotz, Friedrich
APPLICANT: Gotz, Christoph
APPLICANT: Jung, Gunther
ITILE OF INVENTION: Oxidative Decarboxylation of Peptides
ITILE OF INVENTION: Catalyzed by Flavoprotein EpiD
NUMBER OF SEQUENCES: 70
CORRESPONDENCE ADDRESS:
ADDRESSEE Sterne, Kessler, Goldstein & Fox P.L.L.C.
STREET: 1100 New York Avenue, Suite 600
CITY: Washington
STATE: D.C.
CCUMMENT: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 24.5; DB 4; Length 12;
Pred. No. 7e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/382,085
FILING DATE: 18-JUL-1989
PRIOR APPLICATION NUMBER: US 07/382,086
FILING DATE: 18-JUL-1989
PRIOR APPLICATION NUMBER: US 07/326,314
FILING DATE: 18-JUL-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/326,314
FILING DATE: 21-MAR-1989
ATTORNEY/AGRNT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-IM 9830
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/08645193B Patent No. 5962253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34.0%;
63.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 63.6
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CASSL-NSLNT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
RESULT 13
US-09-676-475A-219
US-09-676-475A-219
iS equence 219, Application US/09676475A
; Patent No. 6784153
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Rajotte, Daniel
; TITLE OF INVENTION: Membrane Dipeptidase
; TITLE OF INVENTION: Membrane Dipeptidase
; TITLE OF INVENTION: Membrane Dipeptidase
; FILE REFRENCE: P-LA 4377
; CURRENT APPLICATION NUMBER: US/09/676,475A
; CURRENT PILING DATE: 1998-03-13
; NUMBER OF SEQ ID NOS: 452
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 219

LENGTH: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
US-08-182-967-12
Sequence 12, Application US/08182967
Sequence 12, Application US/08182967
Sequence 12, Application US/08182967
Sequence 12, Application US/08182967
SEQUENCE CAMPATION:
APPLICANT: Carlo, Dennis J.
TITLE OF INVENTION: Peptides and Methods Against Psoriasis
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEB: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
COUNTRY: United States
SIPPE: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36.1%; Score 26; DB 4; Length 13; Similarity 30.8%; Pred. No. 4.2e+02; 4; Conservative 2; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER PAIDLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/182,967
FILING DATE: 14-JAN-1994
CLASSIFRICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/462,471
FILING DATE: 05-JUN-1995
RIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/813,867
FILING DATE: 14-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/813,867
FILING DATE: 22-JAN-1991
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CGSHCGQLCKSLC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 4; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-676-475A-219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
```

ä

1; Gaps

```
Query Match 33.3%; Score 24; DB 2; Length 7; Best Local Similarity 66.7%; Pred. No. 4.1e+05; Matches 4; Conservative 1; Mismatches 1; Indels
; TOPOLOGY: not relevant
; MOLECULE TYPE: peptide
US-08-645-1938-3
                                                                                                                                                             8 STNTFC 13
| |:||
1 SFNSFC 6
                                                                                                                                                             ð
```

0;

0; Gaps

Search completed: April 1, 2005, 10:42:36 Job time : 44 secs

g

Н

```
h 37.0%;
Similarity 75.0%;
3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S:
Matches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Gene: CREB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R-phycoerythrin ga
glycoprotein compo-
vicilin 57K chain
formylglycinamide
leucine-tRNA ligas
protein D - Escher
R-phycoerythrin al
fulicin - giant Af
mitosis inhibiting
dihydrofolate redu
alpha-myosin heavy
venom heptapeptide
T-cell receptor be
variant surface gl
pallidipin - assas
neuropeptide - sea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ferredoxin a2 - Ja
dihydrofolate redu
Na+/K+-exchanging
galactose oxidase
aspartate kinase (
tram protein - Esc
Vesicle associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  jacalin beta-II ch
Y protein - h...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Y protein - human
lipopeptide WS1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  calsequestrin, fas
metallothionein is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acylase - Kluyvera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                         April 1, 2005, 10:48:43; Search time 39 Seconds (without alignments) 19.737 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             909
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                            283416 segs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                  - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137263
JU0355
B39040
S59622
S19288
S69165
B31263
S29881
XEYDGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A32014
A59495
A459495
A46324
A41800
A41800
A41890
A44692
A44692
A44686
A468692
A46869
A31263
                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       529637
                                                                                                                                                                                                                                           US-09-761-636A-6
46
                                                                                                                                                                                                                                                                                                  1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seq length: 0 seq length: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match
                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB 8
Maximum DB 8
                                                                                                  OM protein
                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Result
No.
```

T-cell receptor be hydrogensulfite re tubulin beta-3 cha glutathione transf cadmium-binding he Na+-transporting A globulin IV alpha T-cell receptor be hypothetical prote cytochrome P450 AL tocopherol-binding gene Cfrr protein L-serine ammonia-1 R-phycocrythrin al	ALIGNMENTS [chain - Artocarpus champeden (fragment) ccarpus champeden ccarpus champeden 1997 #sequence_revision 24-Jul-1998 #text_change 24-Jul-1998 311ard, M.; Hoebeke, J. 78. Acta 1156, 219-222, 1993 311bar - and beta-subunits of the jacalins are cleavage products from a 17-kDe and beta-subunits of the jacalins are cleavage products from a 17-kDe abber: S29635; MUID:93152601; PMID:8427879 99637 5000xce: seed srotcein seed storage protein for D-galactosyl-beta-1->3-N-acetylgalactosamine for D-galactosyl-beta-1->3-N-acetylgalactosamine for D-galactosyl-beta-1->3-N-acetylgalactosamine rectetramer; lectin; seed; storage protein 37.0%; Score 17; DB 2; Length 6; milarity 75.0%; Pred. No. 2.8e+05; conservative 1; Mismatches 0; Indels 0; Gaps 0; 1825 5 1508 4	IG-1996 #text_change 05-Nov-1999 nnscript of the CREB gene contains an alternat NBL/DDBJ 1; PIDN:CAA48780.1; PID:g579816
5 2 PT0610 6 2 \$11556 6 2 \$10593 7 2 \$1870 7 2 \$45648 7 2 \$45648 7 2 \$45648 7 2 \$45648 7 2 \$45648 7 2 \$45648 8 2 \$4565 8 2 \$45597 8 2 \$61597 8 2 \$61597 8 2 \$61597 8 2 \$61597 8 3 \$42565	RESULT 1 S29637 jacalin beta-II chain - Artocarpus champeden (fragment) C;Species: Artocarpus champeden C;Species: Artocarpus champeden C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1998 #text_ C;Accession: S29637 Aritie: The alpha- and beta-subunits of the jacalins are A;Reference number: S29635; MUID: 93152601; PMID: 8427879 A;Accession: S29637 A;Accession: S29637 A;Molecule type: protein A;Residues: 1-6 < NGO> A;Experimental source: seed C;Complex: heterotteramer; two alpha and two beta chains C;Complex: heterotteramer; two alpha and two beta chains C;Function: A;Description: seed storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein A;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein D;Note: lectin for D-galactosyl-beta-1->3-N-acetylgalactor C;Keywords: heterotetramer; lectin; seed; storage protein	RESULT 2 137263 Y protein - human (fragment) C; Species: Home sapiens (man) C; bace: 12-Aug-1996 #sequence_revision 12-Aug-1996 #tex C; bacesion: 137263 R; Waeber, G.; Habener, J.F. Endocrinchogy 131, 2010-2015, 1992 A; Title: Novel testis germ cell-specific transcript of A; Reference number: 137263; MUID:991010691; PMID:1396344 A; Recassion: 137263 A; Molecule type: DNA A; Realiminary; translated from GB/EMBL/DDBJ A; Molecule type: DNA A; Residues: 1-6 < RES> A; Csess-references: EMBL: X68994; NID:9396171; PIDN: CAA4 C; Genetics:
10 21.7 10 21.7	RESULT 1 \$29637 jacalin beta-II chain - Artoc C;Species: Artocarpus champed C;Date: 19-Mar-1997 #sequence C;Accesion: \$29637 A;Title: The alpha- and beta- A;Reference number: \$29637 A;Reference number: \$29637 A;Resion: \$29637 A;Residues: 1-6 ANGO- A;Experimental source: seed C;Complex: heterotetramer; tw C;Cunction: seed storage p A;Note: lectin for D-galactos C;Function: seed storage p A;Note: lectin for D-galactos C;Function: 3; Conservative Best Local Similarity 75. Best Local Similarity 75. Dbb I NEQS 4	RESULT 2 Y protein - human (fragment) C; Species: Homo sapiens (man) C; Date: 12-Aug-1996 #sequence. C; Accession: 13763 R; Waeber, G.; Habener, J.F. Endocrinology 131, 2010-2015, A; Title: Novel testis germ cel A; Reference number: 137263; MI A; Accession: 137263; MI A; Status: preliminary; transla A; Molecule type: DNA A; Cross references: EMBL: X6899 C; Genetics:
W W W W W W W W W W W W W W W W W W W	RESULT 1 \$29637 \$29637 \$26310 beta- C; Species: Ar C; Date: 19-Ma C; Accession: R; Ngoc, L.D.; Bjochim. Biop A; Title: The A; Reference n A; Reference n A; Residues: 1 A; Residues: 1 A; Experimenta C; Complex: he C; Function: A; Description A; Note: lection C; Keywords: h Description A; Note: lectii	RESULT 2 137263 137263 Y protein - human (C)Species: Homo sap. C)Adse: 157263 C,Accession: 137263 R,Waeber, G.; Haben, Endocrinology 131, Article: Novel test. A;Reference number: A,Reference number: A,Reference number: A,Residues: prelimina. A;Molecule type: DW. A;Residues: 1-6 <re. a;cross-references:="" c;genetics:<="" td=""></re.>

ö

Gaps

ö

1; Indels

Score 17; DB 2; Length 6; Pred. No. 2.8e+05; 0; Mismatches 1; Indels

|| | SLFC 4

```
acylase - Kluyvera cryocrescens
C.Species: Kluyvera cryocrescens
C.Species: Kluyvera cryocrescens
C.Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
C.Accession: 819288
R.Martin, J.; Slade, A.; Aitken, A.; Arche, R.; Virden, R.
R.Martin, J.; Slade, A.; Aitken, A.; Arche, R.; Virden, R.
A.Title: Chemical modification of serine at the active site of penicillin acylase from Kl
A.Reference number: S19288; MUID:92109664; PMID:1764029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dihydrofolate reductase (EC 1.5.1.3) / thymidylate synthase (EC 2.1.1.45) - Plasmodium felihydrofolate reductase (EC 1.5.1.3) / thymidylate synthase (EC 2.1.1.45) - Plasmodium feliparum falciparum falciparum falciparum falciparum falciparum 28-Feb-1990 #text_change 20-Mar-1996 (C)Accession: B31263
R)Peterson, D.S.; Walliker, D.; Wellems, T.E.
Proc. Natl. Acad. Sci. U.S.A. 85, 9114-9118, 1988
A;Fitle: Evidence that a point mutation in dihydrofolate reductase-thymidylate synthase c A;Reference number: A94217; MUID:89057886; PMID:2904149
A;Reference number: A94217; MUID:89057886; PMID:2904149
A;Reference number: DNA
A;Reference DNA
A;Residues: 1-6 <PET>
                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Kaiware daikon (Japanello)
C;Date: 10-Mar-1998 #sequence_revision 10-Mar-1998 #text_change 09-Jul-2004
C;Accession: S69168
R;Obate, S.; Nishimura, M.; Nagai, K.; Sakihama, N.; Shin, M.
Arch. Biochem. Biophys. 316, 797-802, 1995
A;Title: Four ferredoxins from Japanese radish leaves.
A;Reference number: S69164; MUID:95168867; PMID:7864635
                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32.6%; Score 15; DB 2; Length 8; 100.0%; Pred. No. 2.8e+05; Live 0; Mismatches 0; Indels
   32.6%; Score 15; DB 2; Length 8; 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0; Indels
                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues: 1-8 <0BA>
A;Cross-references: UNIPROT:Q7M1F1
C;Keywords: 2Fe-2S; electron transfer; iron-sulfur protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32.6%; Score 15; DB 2; I 40.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ferredoxin a2 - Japanese radish (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Accession: S19288
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-8 < MAR>
A;Cross-references: UNIPROT:Q7M124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 40.00,
Best Local Si Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.0
                                                              Conservative
                            Similarity
2; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 EESLI 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       || ::
4 EEDIV 8
                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CN 2
                                                                                                                         CN
                                                                                                                                                                           -Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _5
Query Match
Best Local S:
Matches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
                                                                                                                         ઠે
                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ଚ
                                                                                                                                                                                       C;Species: Streptomyces willmore:
C;Species: Streptomyces willmore:
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
C;Accession: JU0355
R;Tsuda, Y: Okada, Y: Tanaka, M.; Shigematsu, N.; Hori, Y.; Goto, T.; Hashimoto, M. Chem. Pharm. Bull. 39, 607-611, 1991
A;Title: Structure and synthesis of an immunoactive lipopeptide, WS1279, of microbial or A;Accession: JU0355; MUID:91300586; PMID:2070441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C.Species: Oryctolagus cuniculus (domestic rabbit)
C.Species: 23-Aug-1991 #sequence_revision 23-Aug-1991 #text_change 23-Peb-1997
C.Paces 23-Aug-1991 #sequence_revision 23-Aug-1991 #text_change 23-Peb-1997
C.Paces 23-Aug-1991 #sequence_revision 23-Aug-1991 #text_change 23-Peb-1997
C.Paces 23-Aug-1991 #sequence_revision 23-Aug-1991 #text_change 23-Peb-1997
R.Cala, S.E.; Jones, L.R.
J. Biol. Chem. 266, 391-398, 1991
A.Title: Phosphorylation of cardiac and skeletal muscle calsequestrin isoforms by casein A.Reference number: A39040; MUID:91093153; PMID:1985907
A.Scatus: preliminary
A.Status: preliminary
A.Residues: 1-7 < CAL>
C.Keywords: phosphoprotein; skeletal muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        metallothionein isoform a, cadmium-binding - Arianta arbustorum (terrestrial snail) (fra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Accession: 855622
R;Berger, B.; Hunziker, P.E.; Hauer, C.R.; Birchler, N.; Dallinger, R.
Biochem. J. 311, 951-957, 1995
A;Itle: Mass spectrometry and amino acid sequencing of two cadmium-binding metallothion A;Reference number: 859621; MUID:96067616; PMID:7487956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 1-6 <fsu>
A;Residues: 1-6 <fsu>
A;Note: the structure was confirmed by synthesis
C;Keywords: blocked amino end; lipoprotein
F;1/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status experimental
F;1/Modified site: fatty acylated amino end (Cys) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: Arianta arbustorum
C;Date: 19-Mar-1997 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32.6%; Score 15; DB 2; Length 6; 100.0%; Pred. No. 2.88+05; vative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPROT:P55946
C;Superfamily: metallothionein
C;Keywords: chelation; metal binding; metal-thiolate cluster
                                                                                                                                                                 lipopeptide WS1279 [validated] - Streptomyces willmorei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               - rabbit (fragment)
```

RESULT 4 B39040 calsequestrin, fast skeletal muscle

S S 1 CN 2

ઠે g

Query Match Best Local Similarity 100.v

A; Molecule type: protein

32.6%; Score 15; DB 2; I 60.0%; Pred. No. 2.8e+05; tive 1; Mismatches 1;

Conservative

2 NEESL 6 DEEDL 6

RESULT 5

셤 ઠે

Query Match Best Local Similarity Matches 3; Conserv

A;Molecule type: protein A;Residues: 1-8 <BER>

ö

Gaps

ö

```
tram protein - Escherichia coli plasmid R100 (fragment)
C.Species: Escherichia coli
C.Species: Escherichia coli
C.Species: 22-Jun-1989 #sequence_revision 22-Jun-1989 #text_change 09-Jul-2004
C.Accession: A32014
R.Inamoto, S.; Yoshioka, Y.; Ohtsubo, E.
J. Bacteriol. 170, 2749-2757, 1989
A.Title: Identification and characterization of the products from the traJ and traY genes A.Reference number: A32014; MUID:88227859; PMID:2836369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cispecies: Mus musculus cispecies: Musculus cispecies:
                               A;Accession: B47594
A;Status: preliminary; not compared with conceptual translation A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-8 < FOL>
C;Keywords: phosphotransferase
                                                                                                                                                                                                                                Score 14; DB 2; Length 8; Pred, No. 2.8e+05; 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 13; DB 2; Length 5; Pred. No. 2.8e+05; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28.3%; Score 13; DB 2; Length 8; 60.0%; Pred. No. 2.8e+05; ive 1; Mismatches 1; Indels
A; Reference number: A47594; MUID: 93308089; PMID: 8100567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vesicle associated membrane protein - Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-5 <INA>
A;Cross.references: UNIPROT:P13973
C;Genetics:
                                                                                                                                                                                                                                       30.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 60.0 Matches 3; Conservative
                                                                                                                                                                                                                                       Query Match
Best Local Similarity 40.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
2; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Genome: plasmid
C;Keywords: DNA binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 EESLI 7
                                                                                                                                                                                                                                                                                                                                                                            3 EESLI 7
                                                                                                                                                                                                                                                                                                                                                                                                                                        2 EEAVL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 NEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
A37521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 1-7 <AVI>
A;Cross-references: UnlyRROT:P06294
C;Comment: The mycelia of this imperfect fungus produce the metalloenzyme galactose oxidapoenzyme, may inactivate the enzyme by binding to its prosthetic copper group.
C;Superfamily: galactose oxidase inhibitor
C;Keywords: copper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Corynebacterium flavum
C;Date: 19-Mar-1997 #sequence_revision 19-Dec-1997 #text_change 19-Dec-1997
C;Accession: B47594
R;Follettie, M.T.; Peoples, O.P.; Agoropoulou, C.; Sinskey, A.J.
J; Bacteriol. 175, 4096-4103, 1993
A;Title: Gene structure and expression of the Corynebacterium flavum N13 ask-asd operon.
                                                                                                                                                                                                                                                                                                                                                                                                                             Na+/K+-exchanging ATPage (EC 3.6.3.9) alpha chain - dog (fragment)
C;Species: Canis lupus familiaris (dog)
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1998 #text_change 19-Apr-2002
C;Accession: 229881
R;Walderhaug, M.O.; Post, R.L.; Saccomani, G.; Leonard, R.T.; Briskin, D.P.
A;Title: Structural relatedness of three ion-transport adenosine triphosphatases around A;Reference number: S29881; MUID:85131201; PMID:3156136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aspartate kinase (EC 2.7.2.4) beta chain - Corynebacterium flavum (strain N13) (fragmenț
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Accession: S29881
A,Molecule type: protein
A,Residues: 1-6 <WAL>
A,Experimental source: kidney
C,Keywords: ATP; heterodimer; hydrolase; ion transport; osmoregulation; phosphoprotein;
F;4/Active site: Asp (aspartylphosphate intermediate) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Galactose oxidase inhibitor - fungus (Cladobotryum dendroides)
C;Species: Cladobotryum dendroides
C;Date: 30-Jun-1987 #sequence_revision 30-Jun-1987 #text_change 09-Jul-2004
C;Accession A01341
Fed. Proc. 31, 447, 1972
A;Reference number: A01341
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                        ;
0
                                                                  30.4%; Score 14; DB 2; Length 6; 60.0%; Pred. No. 2.8e+05; Live 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30.4%; Score 14; DB 2; Length 6; 20.0%; Pred. No. 2.8e+05; ative 4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30.4%; Score 14; DB 1; Length 7; 75.0%; Pred. No. 2.8e+05;
   C; Keywords: methyltransferase; NADP; oxidoreductase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                               Query Match
Best Local Similarity 60.v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 30.4
Best Local Similarity 20.0
Matches 1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                              | ||:
NWESI 6
                                                                                                                                                                                                       2 NEESL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |::::
2 CSDKT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNEES 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 NEES 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 NTES 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A01341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
B47594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                           ò
```

ö

Gaps

ö

ö

Gaps

```
C;Accession: H48394

R;Mather, I.H.; Banghart, L.R.; Lane, W.S.

Biochem. Mol. Biol. Int. 29, 545-554, 1993

A;Title: The major fat-globule membrane proteins, bovine components 15/16 and guinea-pig A;Reference number: A48394; MUID:93250576; PMID:8485470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        glycoprotein component 16/major fat-globule membrane protein/MFG-E8 homolog - bovine (fr
C;Species: Bos primigenius taurus (cattle)
C;Date: 19-Nov-1993 #sequence_revision 18-Nov-1994 #text_change 07-Feb-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
R-phycoerythrin gamma-E chain - red alga (Gastroclonium coulteri) (fragment) C;Species: Gastroclonium coulteri C;Decies: Gastroclonium coulteri C;Date: 07-Mar-1988 #text_change 09-Jul-2004 C;Accession: A37521; J02565 B;Klotz, A.V.; Glazer, A.N. J. Biol. Chem. 260, 4856-4863, 1985 A;Title: Characterization of the bilin attachment sites in R-phycoerythrin. A;Reference number: A2565; MUID:85182601; PMID:3886644 A;Accession: A37521 A37521 A;Residues: 1-8 <KLO>
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                      Query Match 28.3%; Score 13; DB 2; Length 8; Best Local Similarity 50.0%; Pred. No. 2.8e+05; Matches 2; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26.1%; Score 12; DB 2; Length 6; 60.0%; Pred. No. 2.8e+05; ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A Status: preliminary
A, Molecule type: protein
A, Residues: 1-6 < MAT.
A, Residues: 1-6 < MAT.
A, Reperimental source: milk
A, Note: sequence extracted from NCBI backbone (NCBIP:131518)
C, Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5 SLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 ALAC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
```

Search completed: April 1, 2005, 10:56:27 Job time: 40 secs

2 ELLGC 6

ò

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Influenza A virus.
                                                                                                                                                                                                                Dioscorea tokoro.
                                                                                                                                                                                                                                             NCBI_TaxID=64475;
:|||
TLIC 8
                                                                                                                                                                                                                                                                                                                                                                                       S SLIC 8
                                                                                                                                                                                                                                                                                                                          Isomerase.
NON TER
SEQUENCE
                                                                                                                                                                                                                                       Dioscorea.
Ŋ
                                                                                                                                                                        Q9SAY7;
                                                                                                                                                                09SAY7
                                                                                                                                                  RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
067113
                                                                                                                                                           Q9SAY7
                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      042564 fugu rubrip

O'mifi raphanus sa

O'mifi raphanus sa

O'mifi raphanus sa

O'mifi dactylium d

O'mifi secherichia

O'mifi secherichia

O'55184 rattus norv

P81373 secherichia

O'7m267 gastrocloni

O'1589 homo sapien

O'1589 homo sapien

O'9bf87 tapirus ind

O'9bf88 equus caball

O'9bf88 equus caball

O'9bf89 okapia john

O'9bf89 okapia john

O'9bf89 okapia john
                                                                                                                                                                                                                                                                                                                                 Q9say7 dioscorea t
Q67113 influenza a
O42564 fugu rubrip
                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                   April 1, 2005, 10:42:43 ; Search time 116 Seconds (without alignments) 35.316 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                          790
        GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                         1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                      O70Y84
TRM3 ECOLI
O55184
PLP BRANA
VAM6 MOUSE
Q7M267
                                                                                                                                                                                                                                                                                                                                        067113
042564
Q7M1F1
Q7M124
IGAO DACDE
                                                                                                                                                                                                                                                                                                                                                                                                                                     032560
UF03 MOUSE
UPA1 HUMAN
VTIN ALOVR
Q15890
Q15895
                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                     - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9BF89
Q9BF90
Q9BF91
                                                                                                                           Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9BF83
                                                                                                                                                                                                                            UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                   US-09-761-636A-6
                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                           Query
Match Length
                                                                                                  1 CNEESLIC 8
                                                                                                                                                                        seq length: 0 seq length: 8
                                                                                                                  BLOSUM62
                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                  Score
                                    OM protein
                                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                    Sequence:
                                                                                                                                         Searched:
                                                                                                                                                                                                                              Database
                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                 Result
                                                                                                                                                                                                                                                                                                                   Š
```

```
ö
                                                                                                                                                                                              pteropus gi
artibeus ja
callimico g
hylobates c
macaca mula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tarsius ban
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lemur catta
tupaia mino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ateles fusc
                                                                                 nycteris th
                                                                                                                                       rousettus l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cynocephalu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDINDE-8100182; DOI=10.1016/0092-8674(80)90486-9; MEDINDE-81001892; PubMed=7407922; DOI=10.1016/0092-8674(80)90486-9; Dhar R., Chanock R.M, Lai C.-J.; "Norviral oligonucleotides at the 5' terminus of cytoplasmic influenza viral mRNA deduced from cloned complete genomic sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Dioscoreales, Dioscoreaceae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=20279211; PubMed=10821191; DOI=10.1007/8004380051201;
Terauchi R., Kahl G., G., G., Kahl G., Kahl G., G., G., Kahl G., Ka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q67113 PRELIMINARY; PRT; 7 AA.
Q67113;
Q67113;
O1-NOV-1996 (TrEMBLrel. O1, Created)
O1-NOV-1996 (TrEMBLrel. O1, Last sequence update)
O1-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Influenza virus type A (Udorn/72) hemagglutinin (seg 4) cDNA, 3'
(Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
Q9bf93 r Q9bf94 t Q9bf94 t Q9bf95 d Q9bf96 d Q9bf97 d Q9bf99 d Q9bfa1 e Q9bfa1 e Q9bfa3 d Q9b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
Influenzavirus A.
NCBL_TaxID=11320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39.1%; Score 18; DB 2; Length 8; llarity 75.0%; Pred. No. 1.6e+06; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last seq
01-JUN-2003 (TrEMBLrel. 24, Last ann
                                                                                                                                 Q9BF95
Q9BF96
Q9BF97
Q9BF99
Q9BFA0
Q9BFA1
Q9BFA2
Q9BFA3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phosphoglucose isomerase (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09BFA5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
```

ö

Gaps

.; 0

1; Indels

STRE

ठ 셤

```
    Fed. Proc. 31:447-447(1972).
    -!- FUNCTION: Binds one copper ion per molecule but does not bind the galactose oxidase apoenzyme. It may inactivate the enzyme by binding to its prosthetic copper group.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Martin J., Slade A., Aitken A., Arche R., Virden R., "Chemical modification of serine at the active site of penicillin acylase from Kluyvera citrophila.";
Biochem. J. 280:659-662(1991).
PIR, S19288; S19288.
SEQUENCE 8 AA, 950 MW; CC387042D376944E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kluyvera citrophila (Kluyvera cryocrescens).
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Kluyvera.
Control = InxID=580;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Avigad G., Markus Z.;
"Identification of a peptide inhibitor of galactose oxidase from
Dactylium dendroides.";
Fed. Proc. 31:447-447(1972).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JAN-1988 (Rel. 06, Created)
01-JAN-1988 (Rel. 06, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Dactylium dendroides (Cladobotryum dendroides).
Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Hypocreomycetidae; Hypocreales; Hypocreaceae; Hypomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Copper; Direct protein sequencing; Metalloenzyme inhibitor. SEQUENCE 7 AA; 706 MW; 75BB01A456D87DB0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32.6%; Score 15; DB 2; Length 8; 100.0%; Pred. No. 1.6e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30.4%; Score 14; DB 1; Length 7; 75.0%; Pred. No. 1.6e+06; Live 0; Mismatches 1; Indels
                                                              32.6%; Score 15; DB 2; Length 40.0%; Pred. No. 1.6e+06; ive 2; Mismatches 1; Inde
                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2004 (TrEMBLrel. 26, Created)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
               8 AA; 998 MW; C6C05AAB1B0401F1 CRC64;
                                                                                                                                                                                                                                                                                                                                                 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 AA.
                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Conservative
                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                  3 EESLI 7
                                                                                                                                                                                                 || ::
4 EEDIV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 NEES 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ~
                                                                                                                   2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DACDE
               SEQUENCE
                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                         Q7M124
Q7M124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGAO DACDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                             RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best
                                                                                                                                                                                                                                                                                                                  Q7M124
                  g
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=97442476; PubMed=9295353; DOI=10.1074/jbc.272.38.24008; Plummer N.W., McBurney M.W., Meisler M.H.; "Alternative splicing of the sodium channel SCN8A predicts a truncated two-domain protein in fetal brain and non-neuronal cells."; J. Biol. Chem. 272:24008-24015(1997).
EMBL; U97673; AAB80916.1; EMBL; U97673; AAB80916.1;
                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Raphanus sativus var. niger (Chinese radish).
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids,
eurosids II, Brassicales, Brassicaceae, Raphanus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
Eukaryota, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Takifugu.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Truncated voltage-gated sodium channel alpha subunit (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE.
MEDLINE=95168867; PubMed=7864635; DOI=10.1006/abbi.1995.1106;
MEDLINE=95168867; PubMed=7864635; DOI=10.1006/abbi.1995.1106;
MEDLINE=95168867; PubMed=7864635; DOI=10.1006/abbi.1995.1106;
MEDLINE=916863; MEDLINE Arch. Biophys. 316:797-802(1995).
PIR: S69165; S69165.
NON TER

8 8
                                                                                                                                Score 16; DB 2; Length 7; Pred. No. 1.6e+06; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-WAR-2004 (TrEMBLrel. 26, Created)
01-WAR-2004 (TrEMBLrel. 26, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                              7 AA; 834 MW; 605EB0544EA40030 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 1
7 AA; 730 MW; 75B72EA2C73772A0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34.8%; Score 16; DB 2; Le
llarity 66.7%; Pred. No. 1.6e+06;
Conservative 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                              7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
Cell 21:495-500(1980).
EMBL; M25045; AAA43202.1; -.
NON_TER 1
                                                                                                                                34.8%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel. 05, (TrEMBLrel. 05,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ferredoxin a2 (Fragment).
                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                   1 CNEESLIC 8
                                                                                                                                                                                                                                                                                CN----IC 6
                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eurosids II; Brass
NCBI_TaxID=41679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      channel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 LVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JAN-1998
01-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=Scn8a;
                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                     042564;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TER
                                                                                                                                                                                                                                                                                                                                                                                                           042564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q7M1F1
                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                         RESULT 3
104 062 564
AC 0425
AC 0425
DT 01-J.
DT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
```

q

ATT REAL RELEASE

ö

Gaps

ö

Indels

ö

Gaps

; 0

4 NTES

Q81V87

RESULT 7
0081V87
0081V87
00-1-M
DT 01-M
DT 01-

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=88227859; PubMed=2836369;
Inamocto S., Yoshioka Y., Ohtsubo E.;
Indentification and characterization of the products from the traJ and trad genes of plasmid R100.";
J. Bacteriol. 170:2749-2757(1988).
-!- FUNCTION: Transfer gene protein. Is involved in the conjugation process of bacterial cells for the exchange of plasmid DNA.
-!- SUBCELLULAR LOCATION: Cytoplasmic.
-!- SIMILARITY: Belongs to the traM family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Mětazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Splice variants of rat TR4 orphan receptor: differential expression of novel sequences in the 5'-untranslated region and C-terminal
                                                                                                                                                                                                               Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Escherichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIJNE=$6198747; PubMed=8612486; DOI=10.1210/en.137.5.1562; Yoshikawa T., Makino S., Gao X.M., Xing G.Q., Chuang D.M., Detera-Wadleigh S.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Orphan receptor TR4-NS (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 AA; 634 MW; 6B1B1AA443500000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28.3%; Score 13; DB 1; I 66.7%; Pred. No. 1.6e+06; Itive 1; Mismatches 0;
                                                             01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
                        5 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ŕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; M20941; -; NOT_ANNOTATED_CDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR; A32014; A32014. ——
Conjugation; DNA-binding; Plasmid.
NON TER
SEQUENCE 5 AA; 634 MW; 6B1B1AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
                        STANDARD;
                                                                                                                               TraM protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-Sprague-Dawley;
                                                                                                                                                                                      Plasmid IncFII R100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
es 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10116;
                                                                                                                                                                     Escherichia coli
                                                                                                                                                                                                                                                      NCBI_TaxID=562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 NEE 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 NDE 4
TRM3_ECOLI

ID _TRM3_ECOLI

AC P13973;

DT 01-JAN-1990 ()

DT 01-JAN-1990 ()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      domain.";
                                                                                                                                                   Name=traM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=TR4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         055184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       055184
                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chloroplast.

Bukaryoct; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
Jamiids; Lamiales; Lamiaceae; Nepetoideae; Ocimeae; Plectranthus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PubMed=15019625; DOI=10.1016/j.ympev.2003.08.002;
PubMed=15019625; DOI=10.1016/j.ympev.2003.08.002;
Paton A., Springate D.A., Sudde S., Otieno D., Grayer R., Harley M.M., Willis F., Simonds M.S.J., Powell M.P., Savolainen V.;
"Phylogeny and evolution of basils and allies (Ocimeae, Labiatae) based on three plastid DNA regions.";
Mol. Phylogenet. Evol. 31:277-299(2004).
EMBL, AJ505379; CAD45500.1; -..
GO; GO:0003735; F:structural constituent of ribosome; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                         01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
DJ107712.2 (Serine palmitoyltransferase, long chain base subunit like (Aminotransferase 2), variant 1) (Fragment).
                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30.4%; Score 14; DB 2; Length 8; 40.0%; Pred. No. 1.6e+06; Live 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 8;
                                                                                                                                                                                                                                                                                                                                        Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE 8 AA; 945 MW; GEA415A5BEAB5863 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 AA; 908 MW; 8E533682CEBEB042 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Match 30.4%; Score 14; DB 2; I Local Similarity 66.7%; Pred. No. 1.6e+06; es 2; Conservative 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                            EMBL, ALOSO320, CADS4807.1, -. GO: GO: 0008483, F:transaminase activity; IEA. GO: GO:0016740, F:transferase activity; IEA.
                        8 AA.
                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                              Aminotransferase; Transferase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ribosomal protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Conservative
                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plectranthus buchananii.
                                                                                                                                                                                           Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ribosomal protein.
NON_TER 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNEES 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CSSRS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 VIC 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 LIC 8
                                                                                                                                                                   Name=SPTLC2L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=rps16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  NON TER
SEQUENCE
```

Q70Y84

RESULT 8

Query Match

Matches

δ g

Query Match

Matches

ð g ö

Gaps

```
3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2004 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
R-phycoerythrin gamma-E
Gastroclonium coulteri (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q7M267;
01-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Biol. Chem. 260:485
PIR, A37521, A37521.
NON_TER 1 1
NON_TER 8
SEQUENCE 8 AA, 880
                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
es 2; Conserv
          NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                           3 RESLI 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 EEWLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=2773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLIC
                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           032560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q7M267
                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q7M267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               032560
          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Composition and role of tapetal lipid bodies in the biogenesis of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- FUNCTION: May play a structural role in the elaioplast, a tapetum specific plastidial lipid organelle.
                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids, eurosids II, Brassicales, Brassicaceae, Brassica.
                                                         STRAIN=Sprague-Dawley;
MEDLINE=96299786; PubMed=8661150; DOI=10.1006/geno.1996.0368;
Yoshikawa T., DuPont B.R., Leach K.J., Detera-Wadleigh S.D.;
"New variants of the human and rat nuclear hormone receptor, TR4:
expression and chromosomal localization of the human gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hernandez-Pinzon I., Ross J.H.E., Barnes K.A., Damant A.P.,
                                                                                                                                                                                                                                                                                                          28.3%; Score 13; DB 2; Length 7; 100.0%; Pred. No. 1.6e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.3%; Score 13; DB 1; Length 8; 66.7%; Pred. No. 1.6e+06; Live 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                  7 AA; 663 MW; 6DDAA8787EB05350 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 AA; 989 MW; 9D7B1AA452CAA042 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Plastidial lipid_associated protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (Rel. 44, Created)
05-JUL-2004 (Rel. 44, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Vam6-like protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 AA.
                                                                                                                                                                                                      GO; GO:0004872; F:receptor activity; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=cv. Topaz; TISSUE=Tapetum; MEDLINE=99349136; PubMed=10420651;
  Endocrinology 137:1562-1571(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pollen coat of Brassica napus.";
Planta 208:588-598(1999).
                                                                                                                                                              Genomics 35:361-366(1996)
EMBL; U59454; AAB91433.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct protein sequencing.
                                                                                                                                                                                                                                                                                                                              Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brassica napus (Rape)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                            FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=3708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |:|
5 NDE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 NEE 4
                                                                                                                                                                                                                                                                                                                                                                                          7 IC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murphy D.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VAM6 MOUSE
                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLP BRANA
P81707;
                                                                                                                                                                                                                         Receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON TER
SEQUENCE
                                        SEQUENCE
                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
VAM6 MOUSE
TO VAM6 MO DE PROBLES
DT 05-JUL-
DT 05-JUL-
DE VAM6-11
OS MUS MUS MUS
OC EUKARY
OC MAMMALI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
PLP_BRANA
DD P15-JU
DT 15-JU
DT 15-JU
DT 05-JU
DT 05-JU
DE BLAST
OC BUKAR

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
TISSUE-Sperm;
Brahmaraju M., Shoeb M., Laloraya M., Kumar G.P.;
Submitted (MAR-2004) to Swiss-Prot.
-! FUNCTION: May play a role in clustering and fusion of late endosomes and lysosomes (By similarity).
-!- SUBCMIT: Homooligomer (By similarity).
-!- SUBCMIT: Homooligomer (By similarity).
-!- SUBCMILULAR LOCATION: Cytoplasmic and associated with the membranes of lysosomes and late endosomes (By similarity).
Direct protein sequencing; Protein transport; Transport.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDITARY A.V., Glazer A.N.;
Klotz A.V., Glazer A.N.;
Characterization of the bilin attachment sites in R-phycoerythrin.";
J. Biol. Chem. 260:4856-4863(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R-phycoerythrin gamma-E chain (Fragment).
Gastroclonium coulteri (Red alga).
Eukaryota; Rhodophyta; Florideophyceae; Rhodymeniales; Champiaceae; Gastroclonium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Escherichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                     28.3%; Score 13; DB 1; Length 60.0%; Pred. No. 1.6e+06;
                                                                                                                                                                                                                                                                                                                                                        8 AA; 1075 MW; 2CD727337B1B037B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 AA; 880 MW; 180EBDD72DD9D5B7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28.3%; Score 13; DB 2; I. larity 50.0%; Pred. No. 1.6e+06; Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JAN-1998 (TrEMBLrel. 05, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE.
MEDLINE=85182601; PubMed=3886644;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1998 (TrEMBLrel. 05, Le 01-JUN-2003 (TrEMBLrel. 24, Le Propionate kinase (Fragment).
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  [1]

SEQUENCE.

TISSUB=Fibroblast;

MEDINE=95009907; PubMed=7523108;

METRICK B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;

METRICK B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;

METRICK B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;

METRICK B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;

MEDINGRATION and Sequencing of familiar and novel murine proteins using preparative two-dimensional gel electrophoresis.";

Electrophoresis 15.735-745(1994).

-1- MISCELLANEOUS: On the 2D-gel the determined pl of this unknown protein is: 3.1, its MW is: 36 kDa.

Direct protein sequencing.

NON_TER
                                  MEDLINE=99449059; PubMed=10520749;
Hesslinger C., Sawers G.;
"The tdc Depen in Escherichia coli W3110 is separated from the rest of the tdc Operon by insertion of IS5 elements.";
DNA Seq. 9:183-188(1998).
EMBL; AJ001620; CAA04875.1; -..
EMBL; AJ0016301; F:kinase activity; IEA.
Kinase.
NON TER 1 1
SEQÜENCE 8 AA; 1000 MW; 3A505EB044140DC4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-0CT-1994 (Rel. 30, Created)
01-0CT-1994 (Rel. 30, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Unknown protein from 2D-PAGE of fibroblasts (P36) (Fragment).
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / Match 28.3%; Score 13; DB 2; Length 8; Local Similarity 100.0%; Pred. No. 1.6e+06; nes 2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26.1%; Score 12; DB 1; Length 7; 50.0%; Pred. No. 1.6e+06; ative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 AA; 842 MW; 6AA72B1DDB1B1180 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 NEES 5
STRAIN=W3110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
UP03_MOUSE
ID UP03_MOUSE
AC 01-0CT-1994
DT 01-0CT-1994
DT 01-0CT-1994
DE UNKNOWN PYOLE
OC BUKARYOCK W
OC MAMMA114; EU
OX NCBI_TAXID=1
RN [1]
RN [1]
RR T SEQUENCE.
RC TISSUE=Fibrol
RR MEDLINE=9500
RA MEDLINE=PSOUNCE
CC PROCEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
RYKA RAY BELL REAL BOR SO STAN BELL REAL BOX SO STAN BOX SO STAN BELL REAL BOX SO STAN BELL BOX SO STAN BELL REAL BOX SO STAN BELL BOX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

Search completed: April 1, 2005, 10:55:37 Job time : 116 secs

:||: 1 HEEA 4

g

THIS PAGE BLANK (USPTO)

Human pro Human pro

Peptide # Peptide #

Integrin-Integrin Integrin CH1 delet CH1 delet Antibody-

Age 08176 Age 08175 Age 08175 Abg 34987 Abg 34987 Abg 34987 Abg 34987 Adj 52102 Adj 52102 Adj 55915 Adj 55

Partial p Cadherin-Cadherin-

Phage-dis

Peptide 1 Membrane Membrane Membrane

Aay48874 | Aay48637 | Aay48670

Perfect score:

Sequence:

OM protein -

. 0

Run

Scoring table:

Searched:

Database

```
Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

    .8
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                   AAU81097
ABB72552
ABB72552
AD5274106
AD05274106
AD1655015
AD655015
AAX64350
AAX64350
AAX48874
AAX48874
AAX48874
AAX48874
AAB17353
AAE08176
AAE08175
                                         ABG34995
ABG34987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                              Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 2.
                                                                                                                                                                                                                                                                                                                                                                             AAU04525 standard; peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-2001; 2001WO-US001533
                               400000000000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
 Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                   26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-2001
  Synthetic
                                                                                                                                                                                                                                                                                                                                                   RESULT 1
                                                                                                                                                                                                                                                                                                                                                                AAU04525
  Aau04525 VEGF base
Aau04539 VEGF base
Aau04541 VEGF base
Aau04538 VEGF base
Aau04540 VEGF base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conformat
Human CD4
Human TSH
Human TSH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                            // Search time 117 Seconds
(without alignments)
26.445 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aau04539
Aau04541
Aau04540
Aau04540
Aar24954
Aar24954
Aar73451
Aar73451
Aar80365
Aay8644
Aay8644
Abay8644
Abay8644
Abay8649
               version 5.1.6
- 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                  2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                      protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             April 1, 2005, 10:41:48
                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
              GenCore
Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                   geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqp2003as:*geneseqp2003bs:*geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                         Geneseq 16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqp2002s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqp2001s:*
                                                                                                                                                    US-09-761-636A-6
46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match Length
                                                                                                                                                                               CNEESLIC 8
                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0 Maximum DB seq length: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.0.0 6.00
```

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabet a carbon separation distances on opposite antiparallel strands of a Claim 49; Page 32; 102pp; English. WPI; 2001-442248/47. residues.

Cendron

Ś

Stacker

Hughes RA,

Achen MG,

Feline im Peptide A Protein p Glutamine Membrane

Score

Result 8 Peptide C Human car Beta-2-mi

Endostati

Human TSH RGD-bindi

Membrane

Human TSH

Membrane Membrane

Aay48662 1 Aay48640 1 Aab06526

Claudin-2

(LUDW-) LUDWIG INST CANCER RES

Example 25; Page 47; 102pp; English.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 46; DB 4; Length 8; 100.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels

    .8
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU04539 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU04539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
AAU04539
ID AAU0
XX
AAU04539
DT 26-5i
DE VEGF
XX
HUMBAI
XW HORD
XW Giabi
XW Giabi
XW Giabi
XX
CH HUMBAI
XX
CH HB-JI
XX
         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human vaced (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

CC peptides, by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation of the liver, excessive hemangioma, vascularised malignant or benign tumour, post-recovery

CC crebrovascular accident, post-rangioplasty restences, head, heat or cold trauma, substance-induced neovascular sequelae, or chronic liver

CC recebrovascular accided neovascular sequelae, or chronic liver

CC recebrovascular sequence induced neovascular sequelae, or chronic liver

CC sequelae, hypertension induced neovascular sequelae, or chronic liver

CC in a mammal (the mammal has a condition characterised by fluid

CC accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura,

CC brain The peptides are used to incedence or b and

CC vasculature. The monomeric and bicyclic peptides are used to interfere

CC with at least one biological activity induced by VEGF, VEGF-C or -D and

CC diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neovascularisation, lymphangiogenesis; psoriasis, tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 43; DB 4; Length 8; Pred. No. 1.8e+06; 1; Mismatches 0; Indels

    8
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU04541 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 87.55,
Forthold 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CNEETLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU04541;
⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
```

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine

Cendron A;

Stacker S,

Achen MG, Hughes RA,

WPI; 2001-442248/47.

(LUDW-) LUDWIG INST CANCER RES 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. 18-JAN-2001; 2001WO-US001533

26-JUL-2001.

```
Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                             neovascularisation, lymphangiogenesis, psoriasis, tumour, diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy, chronic inflammation, cyclic.
                                                                                                                                                                                                                                                                                          Disulfide-bond
                                                                                                                                                                     Sequence 8 AA;
                                                                                                                                                                                                                                                                              Synthetic.
                                    residues.
                                                                                                                                                                                                                                 AAU04538;
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                    셤
```

.8 /note= "This bond cyclises the peptide"

Location/Qualifiers

```
WO200152875-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 8 AA;
                                                    26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                       The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human vEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides who are residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

The condition is the particle with a mammal with a condition characterised by angiogenesis in a mammal with a condition is diabetic retinopathy, poporiasis, arthropathy, cerebrovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascular sequelae, has to condition induced neovascular sequelae, necessive correction. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid arcmide and condition characterised by fluid arcmide and condition characterised by fluid arcmideled conditions co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
                                                                                                                                                           Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or -D and to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by WEGF. VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chronic inflammation, especially rheumatoid arthritis, psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 42; DB 4; Length 8; Pred. No. 1.8e+06; 2; Mismatches 0; Indels
                                                    Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Mismatches
                                                                                                                                                                                                                                                                                           Example 25; Page 47; 102pp; English
                                                    Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF based monocyclic peptide 16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04538 standard; peptide; 8 AA.
(LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91.3%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 75...
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CNEESLIC 8
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CYGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta carbon separation distances on opposite antiparallel strands of a cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, condition is diabeted reinformed with a mammal with a condition or lymphangiogenesis in a mammal with a condition of diabeter reinformaty, themangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold crauma, substance induced neovascularisation of the liver, excessive continents and substance induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by luid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain The peptides are used to image blood vessels and lymphatic control the mammal and management and m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or lymphangiogenesis, is produced by cyclizing a peptide loop fragment
from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel monomeric monocyclic peptide, used to interfere with angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, VEGF, vascular endothelial growth factor, angiogenesis,
neovascularisation, lymphangiogenesis, psoriasis, tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 75.0%; Pred. No. 1.8e+06; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU04540 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF based monocyclic peptide 18.
                                                                                                                                                                                                                       (LUDW-) LUDWIG INST CANCER RES
18-JAN-2001; 2001WO-US001533.
                                                                               18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||:|||:|
1 CNDESLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04540;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
AAU04540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       XXXEXEXEX
```

```
rel monomeric monocyclic peptide, used to interfere with angiogenesis, lymphangiogenesis, is produced by cyclizing a peptide loop fragment om an exposed loop of a growth factor protein by oxidizing the cysteine
diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy, chronic inflammation, cyclic.
                                                     /note= "This bond cyclises the peptide"
                                                                                                                                                          Cendron A;
                                                                                                                                                                                                                             Example 25; Page 47; 102pp; English
                                       Location/Qualifiers
                                                                                                                                                          Stacker S,
                                                                                                                                         (LUDW-) LUDWIG INST CANCER RES
                                                                                                    18-JAN-2001; 2001WO-US001533.
                                                                                                                  18-JAN-2000; 2000US-0176293P.
                                                                                                                                                         Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    diabetic retinopathy
                                                                                                                                                                        WPI; 2001-442248/47
                                      Key
Disulfide-bond
                                                                     WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 8 AA;
                                                                                    26-JUL-2001
                       Synthetic
                                                                                                                                                                                                               residues.
                                                                                                                                                                                        Novel
                                                                                                                                                                                                        Erom
```

Kopple KD;

"beta-turn or beta-turn mimic tetrapeptide"

3. .6 /note= 7. .8 /note=

Peptide Region

Region

WO9209625-A1

11-JUN-1992.

/note=

"conformationally constraining gp."

91WO-US008873. 90US-00619782.

27-NOV-1991; 29-NOV-1990;

"conformationally constraining gp."

Location/Qualifiers

Disulfide-bond

Synthetic

Human immunodeficiency virus; AIDS; envelope glycoproteins; CD4; cell surface protein; infection.

Conformationally constrained HIV inhibitory peptide.

(first entry)

(revised)

25-MAR-2003 04-DEC-1992

AAR24954;

```
The peptide is conformationally constrained by groups attached to each side. The peptide mimics a beta turn and can bind to at least one HIV envelope protein, thus inhibiting infection. It inhibits the interaction between HIV envelope glycoproteins and human cell-surface protein CD4 by mimicking structures of CD4. See also AAR24950-R24959 and AAR25122. (Updated on 25-WAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conformationally constrained peptides used for inhibiting HIV - by mimicking the stereochemical regions of the CD4 receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bhatnagar PK, Jarlais RLD, Dixon JS, Hendrickson WA,
Kwong P, Peishoff CE, Ryu SE, Truneh A, Sweet RW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMITHKLINE BEECHAM CORP. UNIV COLUMBIA NEW YORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example; Page 24; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1992-217018/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY54526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SMIK) (UYCO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CC whose 3-dimensional structure is modelled on the expose loop of human CC vecRefor (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop frament from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cystein residues. The monocyclic peptides, dimeric bicyclic peptide with at least one amino acid deleted prior comprises and a cyclisation or lymphangiogenesis, concarcerised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, atthropathy, caracterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, atthropathy, caracterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, atthropathy, caracterised managiona, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold craums, substance-induced neovascularisation of the liver, excessive confection. The peptides are also used to modulate vascular permeability in a mammal the mammal has a condition characterised by fluid accumulation in pertipheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere contains and and accidity induced by VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and alabaric retirements.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 39; DB 4; Length 8; Pred. No. 1.8e+06; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84.8%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNEDSFIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
```

```
Human, CD4 protein; antigenic peptide; CDR2-like domain; apoptosis; syncytia formation; human immune deficiency virus; HIV binding;
                                ô
                              2; Indels
  65.2%; Score 30; DB 2; Length 8; 50.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                        Human CD4 protein target antigenic peptide p1615.
                              2; Mismatches
                                                                                                                                                       AAY54526 standard; peptide; 8 AA.
                                                                                                                                                                                                             (first entry)
                              4; Conservative
                                                          1 CNEESLIC 8
Query Match
Best Local Similarity
                                                                                   CNOGSFLC
                                                                                                                                                                                                              25-APR-2000
```

AAR24954 standard; protein; 8 AA.

RESULT 6
AAR24954
ID AAR2

Best Loc Matches

ð 셤

; 0

Gaps

```
Sequence 8 AA;
                                                                                           JP07089991-A.
                                                                                                                                                        38-SEP-1993;
                                                                                                                                                                                      28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP07089991-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-DEC-1995
                                                                                                                         04-APR-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-APR-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR73350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents a target antigenic peptide derived from the CDR2-like domain of the human CD4 protein. The peptide is cyclised by the CDR2-like domain of cysteine residues at either end. The specification describes antigenic peptides derived from the CDR2-like domain of CD4 (amino acids 27-66 of AAY54500). These antigenic peptides present cutantising receptor/Co-receptor effector sites of the CDR2-like domain. The peptides evoke effective antibodies block human immune deficiency virus specificity. The induced antibodies block human immune deficiency virus specificity. The induced antibodies block human immune deficiency virus specificity. The induced antibodies block human immune deficiency virus interactions with other cells deliver signals to T cells (inhibiting normal CD4+-mediated immunoregulatory functions) or induce apoptosis of normal CD4+-mediated immunoregulatory functions) or induce apoptosis of containing the antigenic peptides are used for active immunisation to generate antibodies against CD4 and thus HIV infection, but also to treat undesirable immune responses such as transplant rejection, or autoimmune diseases (rheumatoid arthritis, systemic lupus erythematosus or psoriasis). These conjugates produce high-titre crythematosus or psoriasis). These conjugates produce high-titre antibodies which are broadly neutralising against primary isolates from all classes of HIV-1 and of HIV-2. The peptides may include a promiscuous Thelper epitope that is active in genetically diverse subjects
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                     /note= "this peptide is conformationally restricted by cyclisation"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                        antigenic peptide from the CDR2 domain of CD4, for immunization
CD4-Class II interaction; immunisation; CD4 surface complex; immune response; transplant rejection; autoimmune disease; cyclic; rheumatoid arthritis; systemic lupus erythematosus; psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.2%; Score 30; DB 3; Length 8; 50.0%; Pred. No. 1.8e+06; ive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       against e.g. human immune deficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human TSH receptor (residues 301-308).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 63; 106pp; English.
                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR73351 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                             (UNBI-) UNITED BIOMEDICAL INC
                                                                                                                                                                                                                                                  99WO-US014030
                                                                                                                                                                                                                                                                              98US-00100409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-DEC-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Conservative
                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-160579/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||: | :|
CNQGSFLC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                         Key
Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8 AA;
                                                                            Homo sapiens
                                                                                                                                                                                                                                                                              20-JUN-1998;
                                                                                                                                                                                     WO9967294-A1
                                                                                                                                                                                                                                                21-JUN-1999;
                                                                                                                                                                                                                   29-DEC-1999.
                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAR73351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                           Wang CY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
AAR73351
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 thyroid stimulating hormone receptor; TSH; human; Homo sapiens; antibody; affinity; detection.
thyroid stimulating hormone receptor; TSH; human; Homo sapiens; antibody; affinity; detection.
                                                                                                                                                                                                                                                                  Novel polypeptide(s) having affinity for the human TSH receptor antibody - used in detection of the TSH antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel polypeptide(s) having affinity for the human TSH receptor antibody - used in detection of the TSH antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptides with affinity to human TSH (thyroid stimulating hormone) receptor antibody are used for detection of the antibody. (See also AAR73201-592)
                                                                                                                                                                                                                                                                                                                                                 Peptides with affinity to human TSH (thyroid stimulating hormone) receptor antibody are used for detection of the antibody. (See also AAR73201-592)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 26; DB 2; Length 8; Pred. No. 1.8e+06; 1; Mismatches 1; Indels
                                                                                                                                                                                                         (MITP ) MITSUBISHI PETROCHEMICAL CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MITP ) MITSUBISHI PETROCHEMICAL CO LID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human TSH receptor (residues 291-298).
                                                                                                                                                                                                                                                                                                                    Example 1; Page 25; 54pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3xample 1; Page 25; 54pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR73350 standard; peptide; 8 AA.
                                                                                                                                            93JP-00240853.
                                                                                                                                                                         93JP-00240853.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 56.5%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93JP-00240853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4; Conservative
                                                                                                                                                                                                                                      WPI; 1995-167251/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-167251/22
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ||| |:
CNESSM 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESL 6
```

AAY57040;

Matches

ò 셤

```
The present invention relates to polypeptides that bind cellular receptors for vascular endothelial growth factors (VEGFB), the polynucleotides encoding them, and their use for identifying agents that modulate interactions between VEGFB and their receptors. VEGFB and their receptors play an important role in vasculogenesis, the development of the embryonic vasculature from early differentiating endothelial cells and angiogenesis, the process of forming new blood vessels from prescisting ones. Modulators of interactions between VEGF and its receptors may be used to treat dysfunction of the endothelial cell regulatory system. Such disorders include cancers, abnormal angiogenesis, rheumatoid arthritis and psoriasis. The polypeptides of the invention exhibit unique
                                                                                                                           Human; vascular endothelial growth factor; VEGF-A; vasculogenesis; angiogenesis; blood vessel; cancer; proliferative retinopathy; psoriasis; age-related macular degeneration; rheumatoid arthritis; cardiovascular; primer; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor binding profiles compared to known naturally occurring VEGFs. AAU08446-AAU08454 represent the peptides A1-A9 which are encoded by human VEGF-A forward primers used in the methods of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polypeptides that bind cellular receptors for vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein polymeric adhesion substrate glutamine donor peptide #15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 26; DB 4; Length 8; Pred. No. 1.8e+06; 1; Mismatches 1; Indels
                                                                                            Peptide A6 encoded by human VEGF-A forward primer A6-F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           factors, polynucleotides encoding them.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR80365 standard; peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 9; Fig 7C; 261pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (LUDW-) LUDWIG INST CANCER RES. (LICN ) LICENTIA OY.
                                                                                                                                                                                                                                                                                                                                                                                                         25-FEB-2000; 2000US-0185205P.
18-MAY-2000; 2000US-0205331P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56.5%;
                                                                                                                                                                                                                                                                                                                                                                       26-FEB-2001; 2001WO-US006113.
                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alitalo K, Jeltsch MM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-536640/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNEESL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CNDEGL 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAS12807
                                                                                                                                                                                                                                                                                          WO200162942-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 8 AA;
                                                    21-NOV-2001
                                                                                                                                                                                                                                  Homo sapiens
Synthetic.
                                                                                                                                                                                                                                                                                                                              30-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-APR-1996
                  AAU08451;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR80365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR80365
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *****
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence is an immunogenic fragment of feline immunodeficiency virus (FIV) glycoprotein 130. Peptides AAY57038-Y57039 (also fragments of gp130) arc used in the invention as capture polypeptides when diagnosing FIV infection. The invention relates to an antibody binding composition which consists of an enhanced capture polypeptide, which contains an immunogenic fragment of FIV gag precursor p55, and a second fragment which is part of the env precursor gp130, and an antibody-binding detection composition. The invention also includes a device for PIV. The novel method is used for the diagnosis of Feline Immunodeficiency Virus infection
                                                                                                                                                                                                                                                                                                                                                                                                                             Feline immunodeficiency virus; FIV; infection; diagnosis; gp130; p55; immunogenic fragment; antibody; env precursor; gag precursor; cat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .,
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 26; DB 3; Length 8; Pred. No. 1.8e+06; 1; Mismatches 4; Indels
                                                                                            1; Indels
                                                      Length 8;
                                                                                                                                                                                                                                                                                                                                                                                     Feline immunodeficiency virus immunogenic fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Diagnosing Feline Immunodeficiency Virus infection
                                                    Score 26; DB 2; L
Pred. No. 1.8e+06;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O'connor TP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Page 4; 15pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU08451 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                        AAY57040 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feline immunodeficiency virus.
                                                      56.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99EP-00303760.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antibody binding composition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0085615P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-00089878
                                                                                                                                                                                                                                                                                                                                                 21-FEB-2000 (first entry)
                                                                                          4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IDEX-) IDEXX LAB INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Groat RG, Mermer B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-025671/03.
                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                   1 CNEESL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNONOFFC
                                                                                                                                                           CNESSM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 8 AA;
                  Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-1998;
03-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EP962774-A1
```

AAX57040
AAX57040
AAX57040
AXX
AAX57040
AXX
AXX
AXX
AXX
AXX
AXX
BELIN
XX
XX
AXX
BELIN
XX
XX
BELIN
X

ö

Gaps

Matches

ଚ

RESULT 11 AAU08451 ID AAU0

```
Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W09946284-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-MAR-1998;
26-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAR-2003
10-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6-SEP-1999
                      Cappello J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY48644;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
AAY48644
  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The peptides AAR80351-70 are examples of glutamine donor peptides which can be used to generate protein polymeric adhesion substrate (PPAS) contg. repeats of non-fibrin cross-linking donor peptide sequences (see AAR80345-50 for examples of PPAS proteins). The PPAS proteins can be used as substrates in enzymatic cross-linking reactions catalysed by a transglutaminase enzyme e.g. Factor VIII or XIII. The polymers can be used in biological systems where in situ formation of a biocompatible material with structural integrity is required e.g. as medical adhesives and sealants or for wound closure or tissue repair
                  Pendent group; repeating unit; enzyme recognition site; sealant; fibrin;
enzymatic cross-linking; biocompatible material; structural integrity;
medical adhesive; wound closure; tissue repair; transglutaminase;
protein polymer adhesive substrate.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein polymers comprising repeating units and sequences - capable of enzyme-catalysed covalent bond formation useful as a biocompatible material for wound closure and tissue repair.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein polymer; adhesive sealant; wound healing; cross-linking.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       i, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  54.3%; Score 25; DB 2; Length 8; 37.5%; Pred. No. 1.8e+06; ive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (PROT-) PROTEIN POLYMER TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                  (PROT-) PROTEIN POLYMER TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 9; Page 75; 138pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW49750 standard; peptide; 8 AA.
                                                                                                                                                                                                                                        95WO-US002728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95US-00397633.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94US-00205518.
                                                                                                                                                                                                                                                                             94US-00205518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glutamine donor peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | : :||
cGQSKVIC 8
                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1995-320413/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 8 AA;
                                                                                                                                                                                                                                                                             03-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-MAR-1994;
                                                                                                                                                          WO9523611-A1
                                                                                                                                                                                                                                      03-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2003
12-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US5773577-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-JUN-1998.
                                                                                                                                                                                                 08-SEP-1995
                                                                                                                                                                                                                                                                                                                                                         Cappello J;
                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW49750;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SO X C C C C C C C X S X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X X B X X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
```

```
ö
                                                                                                                                                                                                                                                                                 This is an example of a glutamine donor peptide that can be utilised in novel recombinant protein polymers of the invention. Such polymers (see AAW49710-28) typically comprise a repetitive amino acid backbone of repetitive units having a collagen, fibroin, elastin or keratin motif at least 2 enzyme recognition sequences comprising a glutamine and/or lysine capable of enzyme catalysed isopeptide formation. The polymers are capable of covalent crosslinking by enzymatic reaction to form products which set quickly and have good adhesive properties and high strength. They can be used as medical adhesives and sealants in the closure of wounds and repair of damaged tissues, prosthesis coatings, drug depots, and matrices for the transplantation of cells. (Updated on 25-MAR-2003 to
                                                                       New recombinant protein polymers - containing naturally occurring repetitive units for crosslinking by enzymes, useful as medical adhesives and sealants, depots and matrices.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptides which selectively home to organs or tissues, used for, e.g. identifying target ligands and for therapy of pathological conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homing peptide; organ; tissue; lung; pancreas; skin; retina; MDP; prostate; ovary; lymph node; adrenal gland; liver; gut; tumour; membrane dipeptidase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54.3%; Score 25; DB 2; Length 8; 37.5%; Pred. No. 1.8e+06; ive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Membrane dipeptidase-binding lung homing peptide #15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ruoslahti EI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 6; Page 144; 193pp; English.
                                                                                                                                                                                                                     Example 9; Col 49; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY48644 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US005284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-00042107.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ч,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rajotte D, Pasqualini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BURN-) BURNHAM INST
WPI; 1998-387091/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-571717/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | : :||
CGQSKVIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESLIC
```

```
The present invention describes peptides that selectively home to a tissue or organ. The peptides can be used for identifying an organ or tissue, for identifying a target molecule expressed by an organ or tissue or for treating an organ or tissue pathology, where the organ or tissue is selected from prostate, lung, skin, retina, pancreas, gut, ovary, adrenal gland, liver, and lymph node. The peptide bind to the membrane dipeptidase (MDP). AAV48618 to AAV49066 represent sequences which are used in the exemplification of the present invention. (Updated on 20-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 targeting peptides. The method comprises exposing a sample dream an organ, relation or cell type of interest, to a phage display library and recovering phage bound to the sample (the phage expresses targeting peptides). The peptides identified by the method of the invention may have cytostatic, immunosuppressive, anti-inflammatory, antiatheritic, antiatherosclerotic, antidabetic, antibacterial and antiviral activities. The methods and composition are useful for identifying targeting peptides and one or more receptors for a targeting peptide. The targeting peptides are used for selective delivery of therapeutic agents, including gene therapy vectors and fusion proteins, to specific organs, tissues, or cell types in subject. The targeting peptide may also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Identifying targeting peptides useful for treating e.g. diabetes mellitus, inflammatory diseases, cancer, or autoimmune diseases, comprises exposing a sample to a phage display library and recovering
                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Targeting peptide, cancer, Hodokin's disease, cytostatic; immunosuppressive, anti-inflammatory, antiarthritic; antiviral; antiatherosclerotic; antidiabetic; antibacterial; diabetes mellitus; inflammatory disease; arthritis; atherosclerosis; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This invention relates to a novel method for identifying disease
                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                    Score 25; DB 2; Length 8;
Pred. No. 1.8e+06;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         autoimmune disease; bacterial infection; viral infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 56; Page 242; 298pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG35021 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Endostatin targeting peptide #20.
                                                                                                                                                                                                                                      54.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-SEP-2000; 2000US-0231266P.
17-JAN-2001; 2001US-00765101.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-SEP-2001; 2001WO-US027702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            phage bound to the sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pasqualini R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-383050/41.
                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                         CGNETLRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200220722-A2.
                                                                                                                                                                                                  Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABG35021;
                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  χ.
                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arap
                                                                                                                                                                                                                                                                                                                                                                                                                                ABG35021
88888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                   유
```

```
ö
for treating diseases such as diabetes mellitus, inflammatory diseases, arthritis, atherosclerosis, cancer, autoimmune diseases, bacterial and viral infections and Hodgkin's disease. The present sequence represents targeting peptide of the invention
                                                                                                                                                  Gaps
                                                                                                                                                  ö
                                                                                                                                               3; Indels
                                                                                                                  Length 8;
                                                                                                                Score 25; DB 5; I
Pred. No. 1.8e+06;
                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                         Search completed: April 1, 2005, 10:53:30 Job time : 117 secs
                                                                                                                                               5;
                                                                                                              54.3%;
ilarity 37.5%;
Conservative 2
                                                                                                                                                                                1 CNEESLIC 8
                                                                                                              Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                             CSRSSFLC
                                                                                   Sequence 8 AA;
      8888888
                                                                                                                                                                                                           αg
                                                                                                                                                                                                                            ö
```

457, App 14, App 457, App 457, App 457, App 457, App 147, App 147, App 147, App 1665, Ap 167, Ap 168, Ap 167, Ap 168, Ap 168

Sequence Sequence Sequence Sequence Sequence

Sequence Seq

```
1, 2005, 10:55:44; Search time 93 Seconds (without alignments) 28.524 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                    Published Applications AA:*

(ggn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*

(ggn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO0_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO0_NEW_PUB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*

(ggn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
                                                                                                                                                                                                                       78585
         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                    - protein search, using sw model
                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                   US-09-761-636A-6
46
                                                                                                                                         CNEESLIC 8
                                                                                                                                                                                                                                                                                                                          Published
                                                                                                                                                                                                                                            seg length: 0
seg length: 8
                                                                          April
                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                            Minimum DB
Maximum DB
                                                    OM protein
                                                                                                                                           Sequence:
                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                          Database
                                                                           ü
                                                                         Run
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 6, Appli	Sequence 20, Appl	Sequence 22, Appl	Sequence 19, Appl	Sequence 21, Appl	Sequence 2445, Ap	Sequence 133, App	Sequence 108, App	Sequence 155, App	Sequence 142, App	Sequence 14, Appl	Sequence 25, Appl	Sequence 115, App
ΩI	US-09-761-636A-6	US-09-761-636A-20	US-09-761-636A-22	US-09-761-636A-19	US-09-761-636A-21	US-10-808-187-2445	US-09-795-006A-133	US-10-363-208-108	US-10-838-289-155	US-09-795-006A-142	US-09-827-345-14	US-09-840-277-25	US-09-185-908-115
80	6	σ	δ	σ	σ	17	0	15	11	σ	10	σ	σ
% Query Match Length DB	8	œ	80	80	80	œ	œ	80	80	æ	7	80	α
% Query Match	100.0	93.5	91.3	89.1	84.8	58.7	56.5	54.3	54.3	52.2	50.0	50.0	50.0
Score	46	43	42	41	39	27	26	25	25	24	23	23	23
Result No.	1	7	m	4	S	9	7	80	σ	10	11	12	13

RESULT 2 US-09-761-636A-20

		.,
		Gaps
ALIGNMENTS	RESULT 1 US-09-761-636A-6 US-09-761-636A-6 Sequence 6, Application US/09761636A Patent No. US20020065218A1 GENERAL INFORMATION: APPLICANT: ATCKER, Steven APPLICANT: CANDRON, Angela TITLE OF INVENTION: VEGF-D/VEGF-PEPTIDOMIMETIC INHIBITOR TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR TITLE OF INVENTION UNMBER: US/09/761,636A CURRENT FILING DATE: 2001-01-18 PRIOR APPLICATION NUMBER: US 60/204,590 PRIOR FILING DATE: 2000-05-16 NUMBER OF SEQ ID NOS: 34 SOFTWARE: PATENT VERSION 3.0 SEQ ID NO 6 ILENGRAPH: 8 ILENGRAPH: 8 TYPE: PRT ORGANISM: Homo sapiens	Query Match 100.0%; Score 46; DB 9; Length 8; Best Local Similarity 100.0%; Pred. No. 1.3e+06; Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps Qy 1 CNEESLIC 8 Db 1 CNEESLIC 8
	RD a recent	0 0

```
APPLICANT: PERRIS, JOSEPH S. M.
APPLICANT: PUEN, KWOK YUNG
APPLICANT: GUAN, LIT MAN
APPLICANT: GUAN, WIN
APPLICANT: CHAN, WOK HUNG
APPLICANT: NICHOLLS, JOHN
TITLE OF INVENTION: A DIAGNOSTIC ASSAY FOR THE HUMAN VIRUS CAUSING SEVERE ACUTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                APPLICANT: INCLINI, ASSERTANCE INCOMENTION AND ASSERTING INHIBITOR ITILE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR FILE REPRENCE: 1064/48505 Achen et al CURRENT APPLICATION NUMBER: US/09/761,636A CURRENT FILING DATE: 2001-01-18 PRIOR APPLICATION NUMBER: US/01/76,293 PRIOR PILING DATE: 2000-01-18 PRIOR PLING DATE: 2000-01-18 PRIOR PLING DATE: 2000-05-16 PRIOR PRIOR DATE: 2000-05-16 PRIOR PLING DATE: 2000-05-16 PRIOR PLING DATE: 2000-05-16 PRIOR PRIOR DATE: 2000-05-16 PRIOR DATE: 2000-05-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 21, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION

APPLICANT: ACHEN, Marc

APPLICANT: STACKER, Steven

APPLICANT: ENGRAN, Angela

ITILE OF INVENTION: VGGP-D/VGGF PEPTIDOMIMETIC INHIBITOR

FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT APPLICATION NUMBER: US 60/176,293

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR PILING DATE: 2000-01-18

PRIOR PELING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-16

NUMBER OF SEQ ID NOS: 34

SOFTWARE: PATENT NOS: 34

SOFTWARE: PATENT NOS: 34

SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.1%; Score 41; DB 9; Length 8; 75.0%; Pred. No. 1.3e+06; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 39; DB 9; Length 8; Pred. No. 1.3e+06; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 2445, Application US/10808187; Publication No. US20050009009A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OKGANISM: synthetic construct
US-09-761-636A-21
      APPLICANT: HUGHES, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 75.0°
Elana 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNDESLLC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
US-10-808-187-2445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 22, Application US/09761636A

Sequence 22, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela

APPLICANT: CENDRON, Angela

FILE REFERENCE: 1064/48505 Achen et al

FILE REFERENCE: 10601-01-18

FRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-16

PRIOR FILING DATE: 2000-01-6

NUMBER OF SEQ ID NOS: 34

SOCTWARE: Patentin Version 3.0

FRION 22
                                                                             APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: BTACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR APPLICATION NUMBER: US 60/204,590
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93.5%; Score 43; DB 9; Length 8; 87.5%; Pred. No. 1.3e+06; rative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; DB 9; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 42; DB Pred. No. 1.3e. 2; Mismatches
Application US/09761636A
S20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
US-09-761-636A-19
US-09-761-636A-19
Sequence 19, Application US/09761636A
Patent No. US20020065218A1
GENERAL INPORMATION:
APPLICANT: ACHEN, MARC
APPLICANT: STACKER, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: synthetic construct US-09-761-636A-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91.3%;
ilarity 75.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 8/...
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNEETLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CNEESVVC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CNEESLIC
                             Patent No. US2002006
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-761-636A-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-761-636A-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
```

ò

g

RESPIRATORY SYNDROME (SARS)

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                    US-10-363-208-108

Sequence 108, Application US/10363208

Sequence 108, Application US/10363208

Publication No. US2040048243A1

GENERAL INFORNATION:

APPLICANT: Board of Regents, The University of Texas System

TITLE OF INVENTION: Methods and Compositions for In Vitro Targeting

FILE REFRENCE: 005774-005PCT

CURRENT APPLICATION NUMBER: US/10/363,208

CURRENT FILING DATE: 2003-03-07

NUMBER OF SEQ ID NOS: 273

SOFTWARE: PatentIn version 3.1

SEQ ID NO 108

LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Gao, Jinning
APPLICANT: Gao, Jinning
APPLICANT: Ai, Hua
TITLE OF INVENTION: DRUG DELIVERY SYSTEM BASED ON POLYMER;
TITLE OF INVENTION: NANOSHELLS
FILE REFERENCE: CWRU-PO1-040
CURRENT APPLICATION NUMBER: US 10/828,289
CURRENT PILING DATE: 2004-05-03
PRIOR APPLICATION NUMBER: US 60/502,429
PRIOR APPLICATION NUMBER: US 60/467,389
PRIOR FILING DATE: 2003-09-02
NUMBER OF SEQ ID NOS: 756
SOFTWARE: PASESEQ for Windows Version 4.0
SEQ ID NO 155
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 54.3%; Score 25; DB 17; Length 8; Best Local Similarity 50.0%; Pred. No. 1.3e+06; Matches 4; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 25; DB 15;
Pred. No. 1.3e+06;
2; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
; OTHER INFORMATION: Lung homing peptide US-10-838-289-155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 142, Application US/09795006A, Patent No. US20020151680A1, GENERAL INFORMATION: APPLICANT: Alitalo et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 155, Application US/10838289
Publication No. US20050058603A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               54.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 54.3
Best Local Similarity 37.5
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CSRSSFLC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CGNETLRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-09-795-006A-142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-838-289-155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Alitalo et al
APPLICANT: Alitalo et al
TILLE OF INVENTION: MATERIALS AND METHODS INVOLVING HYBRID VASCULAR
TITLE OF INVENTION: MATERIALS AND METHODS INVOLVING HYBRID VASCULAR
TITLE OF INVENTION: ENDOTHELIAL GROWTH FACTOR DNAS AND PROTEINS
FILE REFERENCE: 28967/359778
CURRENT APPLICATION NUMBER: US/09/795,006A
CURRENT APPLICATION NUMBER: US 60/205,331
PRIOR APPLICATION NUMBER: US 60/185,205
PRIOR PILING DATE: 2000-05-18
PRIOR FILING DATE: 2000-02-25
NUMBER OF SEQ ID NOS: 175
SEQ ID NO 133
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ) OTHER INFORMATION: Description of Artificial Sequence: synthetic; CTHER INFORMATION: peptide
US-09-795-006A-133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 27; DB 17; Length 8;
Pred. No. 1.3e+06;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 56.5%; Score 26; DB 9; Length 8; Best Local Similarity 66.7%; Pred. No. 1.3e+06; Matches 4; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Human severe acute respiratory system virus US-10-808-187-2445
FILE REFERENCE: V9661.0078
CURRENT APPLICATION NUMBER: US/10/808,187
CURRENT APPLICATION NUMBER: US/10/808,187
FRIOR PILING DATE: 2004-03-24
PRIOR PILING DATE: 2003-03-24
PRIOR PILING DATE: 2003-03-24
PRIOR PILING DATE: 2003-03-26
PRIOR PILING DATE: 2003-04-62
PRIOR PILING DATE: 2003-04-62
PRIOR APPLICATION NUMBER: 60/459,931
PRIOR PILING DATE: 2003-04-03
PRIOR PILING DATE: 2003-04-03
PRIOR PILING DATE: 2003-04-03
PRIOR PILING DATE: 2003-04-03
PRIOR PILING DATE: 2003-04-08
PRIOR PILING DATE: 2003-04-14
PRIOR PILING DATE: 2003-05-05
PRIOR FILING DATE: 2003-05-05-05
PRIOR FILING DATE: 2003-05-05-05
PRIOR FILING DATE: 2003-05-05-05
PRIOR FILING DATE: 2003-05-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 133, Application US/09795006A; Patent No. US20020151680A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 58.7
Best Local Similarity 66.7
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ||:|
CNDEGL 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CNEESL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 CNQDSL 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CNEESL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-795-006A-133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
```

ö

ö

```
US-09-185-908-115
            US-09-840-277-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 115
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 14, Application US/09827345

| Sequence 14, Application US/09827345
| Publication No. US20030021800A1
| GENERAL INFORMATION:
| APPLICANT: CHERNANN, JEAN-CLAUDE
| APPLICANT: CHERNANN, JEAN-CLAUDE
| APPLICANT: CHERNANN, JEAN-CLAUDE
| APPLICANT: CHERNANN, JEAN-CLAUDE
| TITLE OF INVENTION: INTRACELLULAR PHASE, COMPOSITION FOR THE TREATMENT AND
| TITLE OF INVENTION: DIAGNOSIS
| FILE REFERENCE: 06591-016
| FILE REFERENCE: 06591-016
| FILE REFERENCE: 06591-016
| CURRENT APPLICATION NUMBER: US/09/827,345
| CURRENT FILING DATE: 2001-04-09
| PRIOR FILING DATE: 1996-06-28
| PRIOR FILING DATE: 1996-06-28
| PRIOR FILING DATE: 1996-06-28
| PRIOR FILING DATE: 1996-06-20
| PRIOR FILING DATE: 1996-06-20
| PRIOR FILING DATE: 1996-06-30
| PRIOR FILING DATE: 1996-02-19
| PRIOR FILING DATE: 1998-02-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
TITLE OF INVENTION: MATERIALS AND METHODS INVOLVING HYBRID VASCULAR TITLE OF INVENTION: ENDOTHELIAL GROWTH FACTOR DNAS AND PROTEINS FILE REFERENCE: 28967/359778
CURRENT APPLICATION NUMBER: US/09/795,006A
CURRENT FILING DATE: 2001-02-26
PRIOR APPLICATION NUMBER: US 60/205,331
PRIOR FILING DATE: 2000-05-18
PRIOR FILING DATE: 2000-05-18
SPRIOR FILING DATE: 2000-02-25
NUMBER OF SEQ ID NOS: 175
SOFTWARE: PATENTIN VEY. 2.0
SEQ ID NO 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: peptide
US-09-795-006A-142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50.0%; Score 23; DB 10; Length 7; 80.0%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 24; DB 9; Length 8;
Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52.2%;
                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 CNSEGL 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CNPES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-827-345-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

RESULT 12

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING CLAUDIN-MEDIATED
TITLE OF INVENTION: FUNCTIONS
FILE REFERENCE: 100086.409
CURRENT APPLICATION NUMBER: US/09/185,908A
CURRENT FILING DATE: 1998-11-03
NUMBER OF SEQ ID NOS: 269
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Product of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Product
OTHER INFORMATION: synthesis based on mouse claudin-2 sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50.0%; Score 23; DB 9; Length 8; 37.5%; Pred. No. 1.3e+06; tive 1; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 8;
                                                                                                     APPLICANT: KOHNO, TADAHIKO
APPLICANT: EAGEY, DAVID LEES
TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
FILE REFERRNCE: A-688A
CURRENT APPLICATION NUMBER: US/09/840,277
CURRENT APPLICATION NUMBER: 00/198,919
PRIOR PILING DATE: 2001-08-14
PRIOR PELING DATE: 2000-04-21
PRIOR PELING DATE: 2000-04-21
PRIOR FILING DATE: 2000-05-03
NUMBER OF SEQ ID NOS: 135
SOFTWARE: PACENTIN VORBER: 60/201,394
NUMBER OF SEQ ID NOS: 135
SOFTWARE: PACENTIN VERSION 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 23; DB 9; 1
Pred. No. 1.3e+06;
3; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Integrin antagonist peptide
US-09-840-277-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 115, Application US/09185908A Publication No. US20020193294A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 457, Application US/10609217
; Publication No. US2004004188A1
Sequence 25, Application US/09840277
Patent No. US20020168363A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ), OTHER INFORMATION: Cyclic Peptide US-09-185-908-115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 37.5%;
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 50.0
Best Local Similarity 37.5
Matches 3; Conservative
                                                                                  APPLICANT: FEIGE, ULRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRISSYVC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-609-217-457
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Board of Regents, The University of Texas System TITLE OF INVENTION: Methods and Compositions for In Vitro Targeting FILE REFERENCE: 005774.P005PCT CURRENT APPLICATION NUMBER: US/10/363,208 CURRENT FILING DATE: 2003-07 NUMBER OF SEQ ID NOS: 273 SOFTWARE: PatentIn version 3.1 SEQ ID NO 74 LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
            APPLICANT: ILU CHUAN-FA
APPLICANT: LIU CHUAN-FA
APPLICANT: CHEETHAM, JANET C.
APPLICANT: CONSTITUTION: MODIFIED PEPTIDES AS THERAPEUTIC AGENTS
FILE REPERRORS: A-527
CURRENT APPLICATION NUMBER: US/10/609,217
CURRENT FILING DATE: 2003-06-27
FRIOR APPLICATION NUMBER: US/09/428,082B
FRIOR APPLICATION NUMBER: 60/105,371
FRIOR APPLICATION NUMBER: 60/105,371
FRIOR FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 1133
SOFTWARE: PALCHLIN VEXEION 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50.0%; Score 23; DB 15; Length 8; 37.5%; Pred. No. 1.3e+06; rative 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50.0%; Score 23; DB 15; Length 8; 25.0%; Pred. No. 1.38+06; tive 3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
; OTHER INFORMATION: INTEGRIN-BINDING PEPTIDE US-10-609-217-457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: Peptide
LOCATION: (1)..(8)
CTHER INFORMATION: synthetic construct
US-10-363-208-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search completed: April 1, 2005, 11:06:05 Job time : 93 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 74, Application US/10363208; Publication No. US20040048243A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 37.5
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CWDDGLMC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | :::|
1 CRASAMVC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CNEESLIC 8
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-363-208-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

THIS PAGE BLANK USPIO,

ì

```
$26553
$26557
$12655
PH1460
PH1464
PH1464
A23695
$26541
PH1458
$47378
$47378
PH0927
                                                                                                                                                                                                                                                                                                                                                                   46.5%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ||| :| ||
CASSIGNYGYTF 12
                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASSLG-TINT 10
 1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 6, Conserv
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٣
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
S47357
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T-cell antigen rec

T-cell receptor be

T-cell receptor be

T-cell antigen rec

T-cell receptor be

T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                  April 1, 2005, 10:05:16 ; Search time 38 Seconds (without alignments) 32.916 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                Description
        GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                283416 segs, 96216763 residues
                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

    protein search, using sw model

                                                                                                                                                                                                                                                                                                                                                                                                                                                                              $26649
$41460
$471406
$471406
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
$471301
                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                              1 CASELGKSTNTFC 13
                                                                                                        US-09-761-636A-5
72
                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                             PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                       seq length: 0 seq length: 13
                                                                                                                                                                                                                                                                                                                                                                                                                    Query
                                                                                                                                                  Scoring table:
                                                                                                                      Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.5
25
                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                               OM protein
                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                               Sequence:
                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                              Database
                                                                    .
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
```

```
Treell receptor beta chain V-J region (4-1-G.4) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Spacession: PT0216
R;Nakano, N; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A;Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not restrict A;Reference number: PT0209; MuID:91217621; PMID:1902501
A;Accession: PT0216
A;Accession: PT0216
A;Residues: 1-12 cNAK>
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASA1394
T-cell antigen receptor VJ junction beta chain - human
C)species: Homo sapiens (man)
C)species: Homo sapiens (man)
C)Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 05-Nov-1999
C)Accession: 847394; 847369
R)Lehner, P.J.
A)Description: Human HIA-A0201 restricted recognition of influenza A is dominated by T ct A;Reference number: 847355
A;Accession: 847394
A;Betrence number: 847354
A;Accession: 847394
A;Coraus: preliminary
A;Molecule type: mRNA
A;Reference mRNA
A;Coras-references: EMBL: Z35714; NID: 9527523; PIDN: CAA84783.1; PID: 9527524; EMBL: Z35694; C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
receptor be receptor be receptor be receptor be receptor be receptor be heavy chain receptor be antigen recantigen receptor be receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                    7-cell 7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Length 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 33.5; DI
Pred. No. 13;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41.7%; Score 30; DB
50.0%; Pred. No. 57;
tive 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALIGNMENTS
```

Matches

ઠે d

```
T-cell receptor beta chain (clone A3/74.1) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: Mus-1994 #sequence_revision 10-Mar-1994 #text_change 15-Mar-2004
C;Accession: PH1466
R;Casanova, J.L.; Martinon, F.; Gournier, H.; Barra, C.; Pannetier, C.; Regnault, A.; Kou J. Exp. Med. 177, 811-820, 1993
A;Title: T cell receptor selection by and recognition of two class I major histocompatibi A;Reference number: PH1466
A;Reference number: PH1466
A;Reference number: PH1466
A;Reference number: C;Accession: PH1466
A;Reference number: C;Accession: PH1466
A;Reference number: C;Accession: C;Accession: C;Accession: C;Caccession: C;Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S. Edebner, P.J. submitted to the EMBL Data Library, August 1994 submitted to the EMBL Data Library, August 1994 A. Description: Human HLA-A0201 restricted recognition of influenza A is dominated by T compressed number: 847355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T-cell receptor beta chain V-J region (4-1-E.2) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 30-May-1997
C;Accession: PT0211
J: Exp. Med. 173, 1091-1097, 1991
A;Fitle: T cell receptor V gene usage of islet beta cell-reactive T cells is not restrict A;Reference number: PT0209; MUID:91217621; PMID:1902501
                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T-cell antigen receptor VJ junction beta chain - human
C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 05-Nov-1999
C;Accession: S47400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
A;Andecule type: mRNA
A;Residues: 1-13 <LBH-
A;Cross-references: EMBL: Z35678; NID:g527535; PIDN:CAA84747.1; PID:g527536
C;Keywords: T-cell receptor
                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38.9%; Score 28; DB 2; Length 13; 41.7%; Pred. No. 1.4e+02; Live 2; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
      Similarity 62.5%; Pred. No. 1.3e+02; 5; Conservative 1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 28; DB 2; I
Pred. No. 1.3e+02;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 41.7
nes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | | | : : | |
1 CASSVALATEAF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: mRNA
A;Residues: 1-11 <NAK>
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
5; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CASSLGQ 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CASELGK 7
                                                                                                         1 CASELGKS
                                                                                                                                                                1 CASSLGNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: S47400
          Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T-cell receptor beta chain (clone Cw3/A8, Cw3/Cas1) - mouse (fragment)
(s/Species: Mus musculus (house mouse)
(s/Date: 13-Jan-1995 #sequence_revision 17-Apr-1998 #text_change 17-Mar-1999
(s/Accession: 826549, 826550
(R)Casanova, J.L.; Cercttini, J.C.; Matthes, M.; Necker, A.; Gournier, H.; Barra, C.; Wid
A)Title: H.-2-restricted cytolytic T lymphocytes specific for HLA display T cell receptor
A)Reference number: $26512; MUID:92364546; PMID:1380061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ħ
                 C.Species: Homo sapiens (man)
C.Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 05-Nov-1999
C.Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 05-Nov-1999
C.Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 05-Nov-1999
R.Lehner, P.J.
Submitted to the EMBL Data Library, August 1994
A.Description: Human HLA-A0201 restricted recognition of influenza A is dominated by A.Datession: S47357
A.Accession: S47357
A.Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T-cell receptor beta chain (clone A24/10.1) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 15-Mar-2004
                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:Z35681; NID:g527451; PIDN:CAA84750.1; PID:g527452
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-12 <CA2>
A;Cross-references: EMBL:X68000
A;Experimental source: cytolytic T-lymphocyte, clone Cw3/Cas1
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-12 <CAS>
A;Cross-references: EMBL:X67999
A;Experimental source: cytolytic T-lymphocyte, clone Cw3/A8
A;Accession: S26550
T-cell antigen receptor VJ junction beta chain - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 29.5; DB; Pred. No. 75; 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40.3%; Score 29; DB 62.5%; Pred. No. 86; tive 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: mRNA
A;Reaidues: 1-12 <CASA
Experimental sources: cytolytic T-lymphocyte
C;Keywords: receptor; T-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38.9%; Score 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CASS-GRSTDT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||| ||::
CASSLGET 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CASELGKS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-13 < LEH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A, Accession: PH1463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

à g

```
S47395
T-cell antigen receptor VJ junction beta chain - human
T-cell antigen receptor VJ junction beta chain - human
C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 05-Nov-1999
C;Accession: S47395
Submitted to the EMBL Data Library, August 1994
A;Bescription: Human HiA-A0201 restricted recognition of influenza A is dominated by T ct
A;Reference number: S47355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell antigen receptor VJ junction beta chain - human C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Daccession: S47381
R;Lehner, P.J.
submitted to the EMBL Data Library, August 1994
A;Description: Human HLA-A0201 restricted recognition of influenza A is dominated by T ce A;Description: S47381
A;Status: preliminary
A;Nolecule type: mRNA
A;Residues: 1.13 c.EE;A
A;Cross-references: EMBL:Z35698; NID:9527487; PIDN:CAA84767.1; PID:9527488
C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
S47382
C:cell antigen receptor VJ junction beta chain - human
C:cell antigen sapiens (man)
C:pecies: Homo sapiens (man)
C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 05-Nov-1999
C:Accession: S47382; S47370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1.12 (-EHS)
A;Cross-references: EMBL:Z35715; NID:g527525; PIDN:CAA84784.1; PID:g527526
C;Keywords: T-cell receptor
                   A;Molecule type: mRNA
A;Residues 1.11 = ABURA
A;Cross-references: EMBs:Z49953; NID:g887510; PIDN:CAA90224.1; PID:g887511
C;Keywords: T-cell receptor
                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36.1%; Score 26; DB 2; Length 13; 41.7%; Pred. No. 3.2e+02; tive 1; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             h Similarity 50.0%; Pred. No. 3e+02; Length 12; Similarity 50.0%; Pred. No. 3e+02; 6; Conservative 0; Mismatches 6; Indels
                                                                                                                               Length 11
                                                                                                                      Score 26; DB 2; 1
Pred. No. 2.7e+02;
1; Mismatches 1;
                                                                                                                            36.1%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 41.7
Matches 5, Conservative
                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CASSOGSYGYTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CASSTRSNTEAF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity Matches 6; Conserve
                                                                                                                        Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                           1 CASELGK 7
                                                                                                                                                                                                                                                     1 CASOGGK 7
A,Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
S47381
                                                                                                                                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                    C; Species: Homo sapiens (man)
C; Species: Homo sapiens (man)
C; Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 05-Nov-1999
C; Accession: 847391; 847386
A; Description: Human HLA-A0201 restricted recognition of influenza A is dominated by T c A; Reference number: 847351
A; Recession: 847391
A; Residues: 1-12 < LEH->
A; Residues: 1-12 < LEH->
A; Coorse-references: EMBL: Z35712; NID: G527519; PIDN: CAA84781.1; PID: G527520; EMBL: Z35701; C; Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
S57575
T call receptor V-J junctional alpha chain region - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 19-Oct-1995 #sequence_revision 17-Nov-1995 #text_change 05-Nov-1999
C;Date: 19-Oct-1995 #sequence_revision 17-Nov-1995 #text_change 05-Nov-1999
R;Burrows, S.R.; Silins, S.L.; Moss, D.J.; Khanna, R.; Misko, I.S.; Argaet, V.P.
submitted to the EMBL Data Library, June 1995
A;Reference number: S57494
A;Accession: S57575
                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-13 o.LEH>
A;Cross-references: EMBL:235709; NID:g527513; PIDN:CAA64778.1; PID:g527514
C;Keywords: T-cell receptor
                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                 Score 27; DB 2; Length 11;
Pred. No. 1.8e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 27; DB 2; Length 13;
Pred. No. 2.1e+02;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Indels
                                                                                                                                                                                                                                                     antigen receptor VJ junction beta chain - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 27; DB 2;
Pred. No. 2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37.5%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37.5%;
50.0%;
                 Query Match
Best Local Similarity 83.3%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 50.v
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CASSTGSYGYTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||| :| |
CASSMGGS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CASELGKS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                  CASELG 6
                                                                                                                                            CASRLG 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                                                                                               S47391
T-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S47383
T-cell
                                                                                                       ઠે
                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
```

ö

ö

```
R; Lehner, P.J.
submitted to the EMBL Data Library, August 1994
A; Description: Human HLA-A0201 restricted recognition of influenza A is dominated by T c
A; Beference number: $47355
A; Accession: $47382
A; Colecule type: mRNA
A; Residues: 1-13 < LEH>
A; Residues: 1-13 < LEH>
A; Cross references: EMBL: Z35687; NID: 9527463; PIDN: CAA84756.1; PID: 9527464; EMBL: Z35695; C; Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T-cell receptor alpha chain J region - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Accession: 523371
C;Accession: 523371
C;Accession: 523371
C;Accession: 523371
C;Agrander, G.; Ricken, G.; Taube, H.; Kroninger, S.; Melchers, I.; Peter, H.H.; Eichman A;Pluschke, G.; Ricken, G.; Taube, H.; Kroninger, S.; Melchers, I.; Peter, H.H.; Eichman A;Title: Biased T cell receptor V(alpha) region repertoire in the synovial fluid of rheu A;Reference number: 523371
A;Reference number: 523371
A;Reference number: s23371
A;Relatus: preliminary; translation not shown
A;Residues: 1-10 <PLU>A;Residues: L-10 <PLU>A;Residues: L-10 <PLU>A;Residues: L-10 <PLU>A;Residues: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 35.4%; Score 25.5; DB 2; Length 13; Best Local Similarity 54.5%; Pred. No. 3.9e+02; Matches 6; Conservative 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ||| : :||:|
1 CASSM-RSTDT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

Search completed: April 1, 2005, 10:41:41 Job time : 39 secs

: | |||| 2 SGEAGKST 9

8 8

ô

0; Gaps

Query Match
34.7%; Score 25; DB 2; Length 10;
Best Local Similarity 62.5%; Pred. No. 3.8e+02;
Matches 5; Conservative 1; Mismatches 2; Indels

brassica ol rana catesb

Q9gju2 Q6mze6 Q9t019 P82820

white spot

trametes ve pinus pinas rana catesb ascaris suu rattus norv taurus

P82005 Q9ur22 P20011 P81668 P82823 Q6tui7 Q80wz0 Q6dwl3

вод

054809

13 AA

```
MEDLINE=97129408; PubMed=8973916;
MEDLINE=97129408; PubMed=8973916;
Mary Sonteg J., Boang L., Brenner S., Wilkie T.M.;
Sarwal M.M., Sonteg J., M., Hoang L., Brenner S., Wilkie T.M.;
Grochein alpha subunit multigene family in the Japanese puffer fish Fugu rubripes: PCR from a compact vertebrate genome.";
Genome Res. 6:1207-1215(1996).
EMBL; L79891; AAL77640.1; -
GO, GO:0004871; R:signal transducer activity; IEA.
GO; GO:0007186; P:G-protein coupled receptor protein signalin. .; IE
                                                                                                                                                                                                                                                        Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Takifugu.
NCBI TaxID=31033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 27; DB 2; Length 13;
Pred. No. 7.3e+02;
); Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
15.0ngation factor 1 alpha (Fragment).
15.0ngation factor 1 alpha (Fragment).
15.0ngation factor 1 alpha (Fragment).
15.0ntyosphaeria parva.
15.0ntyosphaeriaces et Chaetothyriomycetes incertae sedis;
15.0ntyosphaeriaces;
16.1ntyosphaeriaces;
17.1ntyosphaeriaces;
17.1ntyosphaeriaces
                                                                                                                                                                                                                                                                                                                                                                                                                                                     13 AA; 1336 MW; 465B59640B44B5B3 CRC64;
                                                                                                                                                                                                                         01-JUN-2002 (TrEMBLrel. 21, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update) Guanine nucleotide binding protein (Fragment).
                                                                                                                                                 ALIGNMENTS
                                                    LIGA TRAVE
PSBP PINPS
RANB RANCA
Q6TUI7
Q80WZ0
        QGMZEG
Q9T0L9
RAN5 RANCA
V23K WSSV
Q9URZ2
                                                                                                                                                                                                                (TrEMBLrel. 21, Created)
(TrEMBLrel. 21, Last seq
(TrEMBLrel. 24, Last ann
                                                                                                   Q6DW13
Q61331
O54809
                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37.5%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam, PF00503, G-alpha; 1.

NON TER 1 1

NON TER 13 13

SEQÜENCE 13 AA; 1336 MW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                PRELIMINARY;
 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ASELGKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGESGKST
-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
9
                                                                                                                                                                                                                                                     Name=Gnao;
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q6XSN9
Q6XSN9;
                                                                                                                                                                                                080GZ5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
                                                                                                                                                                             RESULT 1
6NSX90
                                                                                                                                                                                       080GZ5
                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RXCOCCEPTTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      botrýosphae
human papil
human papil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            phialophora
togninia fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            lactococcus
unidentifie
                                                                                                                                                                                                                                                                                                                                                                                                                 phomopsis s
                                                                                                                                                                                                                                                                                                                                                                                                                                             botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ootryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          botryosphae
botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          physcomitre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gallus gall
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rana catesb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             botryosphae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       togninia mi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                reovirus ty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 catesb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cercospora
                                                                                                                                                                                                                                                                                                                                                                                                                                   pilidiella
                                                                                                                                                                                                                                                                                                                                                                                                                                                      quignardia
                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              togninia
                                                                        (without alignments) 57.388 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                             09:36:29 ; Search time 116 Seconds
                                                                                                                                                                                      4955
          GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                   1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PSP3 PHYPA
09PS67
06R272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q85666
RANG_RANCA
RAN7_RANCA
                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                             - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                             Q8QGZ5
Q6XSN9
Q69FL6
Q69FL3
Q69FL3
Q6XDZ3
Q6XDZ3
Q6XDZ6
Q6XDZ7
Q6XDZ7
Q6XDZ7
Q6XDZ7
Q6XDZ7
Q6XE03
Q6XE03
Q6XE03
Q6XE03
Q6XE03
Q6XE03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q918T4
Q918T4
Q6Y5E3
Q6Y5E4
Q6Y5E8
Q6Y5E8
Q6Y5G9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DAMIDI
                                                                                                                                                Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                      UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                     1 CASELGKSTNTFC 13
                                                                                                   US-09-761-636A-5
72
                                                                                                                                                                                                                                                                                                                                                                             B
                                                               April 1, 2005,
                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length
                                                                                                                                                                                                        seq length: 0 seq length: 13
                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                       Perfect score:
                                            OM protein
                                                                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                                       Seguence:
                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                         Database
                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                   100846577000011111111008469793
                                                                                                                                                                                                                                                                                                                                                                   Result
                                                                                                                                                                                                                                                                                                                                                                             ٠
ک
```

ö

Gaps

ö

Ş

RRA BRITA BR

à

```
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Translation elongation factor 1 alpha (Fragment).
Pilidiella diplodiella
Bukaryota; Fungi, Ascomycota; Pezizomycotina; Sordariomycetes;
Sordariomycetidae, Diaporthales; Melanconidaceae; Schizoparme complex;
mitosporic Schizoparme; Pilidiella.
                                                                                                                                                                                                                                                                                                                                                           Van Niekerk J.M., Groenewald J.Z., Verkley G.J.M., Fourie P.H., Wingfield M.J., Crous P.W., "Systematic reappraisal of Coniella and Pilidiella, with specific reference to species occurring on Eucalyptus and Vitis in South
                                                                                                                                                        Bukaryota, Fungi, Ascomycota, Pezizomycotina, Sordariomycetes,
Sordariomycetidae, Diaporthales, Valsaceae, mitosporic Valsaceae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Van Niekerk J.M., Groenewald J.Z., Verkley G.J.M., Fourie P.H., wingfield M.J., Crous P.W., "Systematic reappraisal of Coniella and Pilidiella, with specific reference to species occurring on Eucalyptus and Vitis in South
                                                                                                                                                                                                                                                                                                                                MEDLINE=23358489; PubMed=15185979;
Van Niekerk J.M., Groenewald J.Z., Verkley G.J.M., Fourie P.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=23358489; PubMed=15185979;
Van Niekerk J.M., Groenewald J.Z., Verkley G.J.M., Fourie P.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  van Niekerk J.M., Crous P.W., Groenewald J.Z., Verkley G.J.M., Fourie P.H., Wingfield M.J.; Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases. EMBL; AY333357; AR404086.1; - GO, GO:0003746; F:translation elongation factor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 26; DB 2; Length 10;
Pred. No. 8.6e+02;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                726CD0B87338772B CRC64;
                            25-OCT-2004 (TrEMBLrel. 28, Created) 25-OCT-2004 (TrEMBLrel. 28, Last sequence update) 25-OCT-2004 (TrEMBLrel. 28, Last annotation update) Translation elongation factor 1 alpha (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last seq
25-OCT-2004 (TrEMBLrel. 28, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mycol. Res. 108:283-303(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4ycol. Res. 108:283-303(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10 10
10 AA; 1007 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 36.1
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                   Phomopsis sp. R338E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AAELGKGS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Elongation factor.
                                                                                                                                                                                                                                  NCBI_TaxID=251293;
                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-STE-U 3931;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-STE-U 3931;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=251300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-R338E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Africa."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q69FL3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Africa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q69FL3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q69FL3
       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C STRAIN-CHWILDGE, CWWILDGE, CWM10089, CWM10094, CWM10095, and CWWILDGE, CMCCAMILDGE, CWWILDGE, CWWING, CWWILDGE, CWWING, CWWILDGE, CWWING, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=23359489; PubMed=15185979; Van Niekerk J.M., Groenewald J.Z., Verkley G.J.M., Fourie P.H., Wingfield M.J., Crous P.W., "Systematic reappraisal of coniella and Pilidiella, with specific reference to species occurring on Eucalyptus and Vitis in South
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Phomopsis sp. R433R.
Eukaryota, Fungi, Ascomycota, Pezizomycotina, Sordariomycetes,
Sordariomycetidae, Diaporthales, Valsaceae, mitosporic Valsaceae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=R433R; van Niekerk J.M., Crous P.W., Groenewald J.Z., Verkley G.J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fourie P.H., Wingfield M.J., Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases. EMBL, AX339354; AAR04083.1; -. GO; GO:0003746; F:translation elongation factor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 26; DB 2; Length 10;
Pred. No. 8.6e+02;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                             Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 10 10
10 AA; 1007 MW; 726CD0B87338772B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-0CT-2004 (TrEMBLrel. 28, Created)
25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation updat
Translation elongation factor 1 alpha (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                       1 36.1%; Score 26; DB 2; I Similarity 62.5%; Pred. No. 1.6e+06; 5; Conservative 2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycol. Res. 108:283-303(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36.1%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 AAELGKGS 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAELGKGS 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=251294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 5; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ongation factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=R433R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Phomopsis
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON TER
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O69FL6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Africa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q69FL6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q69FL7
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
```

RESULT 3
1069FL6
AC 069FL6
DT 25-0
DT

RESULT 4 Q69FL7 ID Q69FI

ò 셤

ö

Gaps

. 0

Gaps

ö

Matches

ò 원 RESULT 6

```
SEQUENCE FROM N.A. Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D., Wingfield M.J., Wingfield M.J., "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D., Wingfield M.J.;
 Mycologia 96:83-101(2004).
EMBL; AY236905; AAP87169.1; -.
GO; GO:0003746; F:translation elongation factor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL, AY236904, AAP87168.1, -. GO: 60:0003746; F.translation elongation factor activity; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 26; DB 2; Length 13;
Pred. No. 1.1e+03;
2; Mismatches 1; Indels
                                                                                                                                                                         1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dothideomycetes et Chaetothyriomycetes incertae sedis;
Botryosphaeriaceae; Botryosphaeria.
NCB_TaxID=85927;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Botryosphaeria obtusa.
Eukaryota, Fungi, Ascomycota, Pezizomycotina,
Dothideomycetes et Chaetothyriomycetes incertae sedis,
                                                                                                       DSF1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D5F1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27, Last sequence update)
28, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                               Translation elongation factor 1 alpha (Fragment)
                                                                                                                                     Score 26; DB 2; Pred. No. 1.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Translation elongation factor 1 alpha (Fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Fungi; Ascomycota; Pezizomycotina;
                                                                                                                                                                                                                                                                                                                              13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13 AA.
                                                                                                                                                                         2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel. 27, Created)
                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Botryosphaeriaceae; Botryosphaeria.
NCBI_TaxID=66732;
                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                       36.1%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36.1%;
62.5%;
                                                                                                      13 AA; 1394 MW;
                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 27, (TremBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13 AA; 1394 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycologia 96:83-101(2004)
                                                                                                                                                                          5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Conservative
                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Botryosphaeria stevensii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TrEMBLrel.
                                                                                                                                                                                                                                          6 AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 AAELGKGS 13
                                                    Elongation factor.
NON_TER 1
NON_TER 13
SEQUENCE 13 AA;
                                                                                                                                                                                                          2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Elongation factor.
NON_TER 1
NON_TER 13
SEQUENCE 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ASELGKST 9
                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                            05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9ZQX9Ö
                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                           RESULT 8
Q6XDZ4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9ZQX9Ö
       SO FF SO
                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D., Wingfield M.J.; "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria dothidea.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Slippers B., Vermeulen G., Crous P.W., Coutinho T.A., Wingfield B.D., Wingfield M.J.; "Multiple gene sequences delimit Botryosphaeria australis sp. nov. as
                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AY339268; AAQ75708.1; -.
EMBL; AY339269; AAQ75708.1; -.
EMBL; AY339270; AAQ75710.1; -.
EMBL; AY39271; AAQ75711.1; -.
GO; GO:0003746; F:translation elongation factor activity; IBA.
BIONGATION TER 1 1
NOW TER 13 13
                                                                                      Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 26; DB 2; Length 13; Pred. No. 1.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a gister species to B. lutea.";
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Fungi; Ascomycota; Pezizomycotina;
Dothideomycetes et Chaetothyriomycetes incertae sedis;
Botryosphaeriaceae; Botryosphaeria.
NCBI_TaxID=240362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
17anslation elongation factor 1 alpha (Fragment).
Guignardia philoprina.
Bukaryota; Fungi; Ascomycota; Pezizomycotina;
Dothideomycetes et Chaetothyriomycetes incertae sedis;
                                                   726C85F18129772B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13 AA; 1394 MW; DSF1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                         (TrEMBLrel. 28, Last sequence update) (TrEMBLrel. 28, Last annotation update)
                                                                                  Score 26; DB 2; I
Pred. No. 1.1e+03;
2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13 AA.
                                                                                                                                                                                                                                                                           13 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Mismatches
                                                                                                                                                                                                                                                                                                                                                         Elongation factor-1 alpha (Fragment).
                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Botryosphaeriaceae; Guignardia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36.1%;
62.5%;
                                 13 13
13 AA; 1394 MW;
                                                                                36.1%;
Similarity 62.5%;
5; Conservative
                                                                                                                                                                                                                                                                                                         25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                            Botryosphaeria australis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5; Conservative
                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                          |:|||| :
4 AAELGKGS 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAELGKGS 13
Elongation factor.

NON_TER 1

NON_TER 13

SEQUENCE 13 AA;
                                                                                                                                                     2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ASELGKST 9
                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                         25-OCT-2004
25-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                        Q69FP4
Q69FP4;
```

ö

Gaps

ö

Q6XDZ3

Matches

ò

```
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q6XE05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q6XE03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q6XE05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q6XE03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCOSSEPPR
SCOSSE
      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sidgnence FROM N.A. Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D., Wingfield M.J.; Crous P.W., Benealogies and phenotypic characters "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D.,
Wingfield M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
dothidea.";

Mycologia 96:83-101(2004).

EMBL; AV236902; AAP87166.1; -.

EMBL; AV236903; AAP87167.1; -.

GO; GO:0003746; F:translation elongation factor activity; IEA:

ELOngation factor.

NON TER

1 1

NON_TER

13 13

SEQUENCE 13 AA; 1394 MW; D5F1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MyCologia 96:84-101(2004).

EMBL, AY236901; AAP87165.1; -.

EMOGO: 00:0003746; Firanslation elongation factor activity; IEA.

Elongation factor.

NON_TER 1 1

SEQÜENCE 13 AA; 1394 MW; D5F1817FFC3AlDDD CRC64;
                                                                                                                                                                                                                                                                                                                                    Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Fungi; Ascomycota; Pezizomycotina;
Dothideomycetes et Chaetothyriomycetes incertae sedis;
Botryosphaeriaceae; Botryosphaeria.
NCBI_TaxID=45133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Fungi; Ascomycota; Pezizomycotina;
Dothideomycetes et Chaetothyriomycetes incertae sedis;
Botryosphaeriaceae; Botryosphaeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-UUL-2004 (TrEMBLrel. 27, Created)
05-UUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Translation elongation factor 1 alpha (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , Last sequence update)
, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUL_2004 (TrEMBLrel. 27, Created)
05-JUL_2004 (TrEMBLrel. 27, Last sequence update
05-JUL_2004 (TrEMBLrel. 27, Last annotation update)
Tranglation elongation factor 1 alpha (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 26; DB 2; I
Pred. No. 1.1e+03;
2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                          Score 26, DB 2, I
Pred. No. 1.1e+03;
2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                    36.1%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36.1%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 62.5%,
Best S; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycologia 96:83-101(2004)
                                                                                                                                                                                                                                                                                                                                                                                                        5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Botryosphaeria rhodina.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Botryosphaeria rhodina.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |:|||| :
6 AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=45133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   dothidea."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q6XDZ8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q6XDZ8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q6XDZ7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
Q6XDZ7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
06XDZ8
AC 06XDZ8
AC 06XDZ
DT 05-JU
DT 05-JU
DD 05-DU
DD 05-JU
DD 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                       ö
"Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D., Wingfield M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dothidea.";
Mycologia 96:83-101(2004).
BMBL; AY236895; AAP87159-1; -.
EMBL; AY236895; AAP87160.1; -.
EMBL; AY236899; AAP87161.1; -.
EMBL; AY236899; AAP87161.1; -.
EMBL; AY236899; AAP87161.1; -.
GO; GO:0003746; F:translation elongation factor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                    ò
                                               dothidea.";
Mycologia 96:83-101(2004).
BMBL; AY236900; AAP87164.1; -
GO; GO:0003746; F:translation elongation factor activity; IEA.
Blongation factor.
NON TER 1 1 1
SEQÜENCE 13 AA; 1394 MW; D5F1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match

36.1%; Score 26; DB 2; Length 13;
Best Local Similarity 62.5%; Pred. No. 1.1e+03;
Matches 5; Conservative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                          Score 26; DB 2; Length 13;
Pred. No. 1.1e+03;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Botryosphaeria lutea.
Bukaryota, Fungi, Ascomycota, Pezizomycotina,
Dothideomycetes et Chaetothyriomycetes incertae sedis,
Botryosphaeriaceae, Botryosphaeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Fungi; Ascomycota; Pezizomycotina;
Dothideomycetes et Chaetothyriomycetes incertae sedis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13 AA; 1394 MW; D5F1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 25-OCT-2004 (TrEMBLrel. 28, Last annotation update) Translation elongation factor 1 alpha (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update
25-OCT-2004 (TrEMBLrel. 28, Last annotation upda
Translation elongation factor I alpha (Fragment)
Botryosphaeria dothidea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6XE05;
05-JUL-2004 (TrEMBLrel. 27, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botryosphaeriaceae; Botryosphaeria.
NCBI_TaxID=55169;
                                                                                                                                                                                                                                                                                    36.1%;
62.5%;
                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 62.5%,
Fernance 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                          |:|||| :
6 AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Elongation factor.

NON_TER 1

NON_TER 13

SEQUENCE 13 AA; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                       2 ASELGKST 9
```

Gaps

ö

1; Indels

62.5%; Pred. No. 1.1e+03; tive 2; Mismatches 1

```
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                      q
                                                                                                                                                                                                                                                                                  A PART REPORT OF THE PROPERTY 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                    "Multiple gene sequences delimit Botryosphaeria australis sp. nov. as a sister species to B. lutea."; submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases. EMBL; AY236893, AAR87157.1; -. EMBL; AX339265, AAQ75705.1; -. EMBL; AX339267, AAQ75706.1; -. EMBL; AX339267, AAQ75707.1; -. GQG, GO:0003746; F:translation elongation factor activity; IEA.
                                              SEQUENCE FROM N.A.
Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D.,
Wingfield M.J.;
"Combined multiple gene genealogies and phenotypic characters
differentiate several species previously identified as Botryosphaeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria dothidea.";
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
Slippers B., Vermeulen G., Crous P.W., Coutinho T.A., Wingfield B.D.,
Wingfield M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. Slippers B., Vermeulen G., Crous P.W., Coutinho T.A., Wingfield B.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wingfield M.J.; "Multiple gene sequences delimit Botryosphaeria australis sp. nov.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a sister species to B. lutea.";
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY236891; AAR87155.1;
EMBL; AY338264; AAQ75704.1;
GO; GO:0003746; F:translation elongation factor activity; IEA.
Elongation factor.

NON TER
1
SEQÜENCE 13 AA; 1394 MW; D5F1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36.1%; Score 26; DB 2; Length 13; 62.5%; Pred. No. 1.1e+03; tive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Fungi, Ascomycota, Pezizomycotina,
Dothideomycetes et Chaetothyriomycetes incertae sedis,
Botryosphaeriaceae, Botryosphaeria.
NCBI_TaxID=233969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE 13 AA; 1394 MW; DSF1817FF18C1DDD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL_2004 (TrEMBLrel. 27, Created)
05-JUL_2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Translation elongation factor 1 alpha (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Botryosphaeria eucalyptorum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mycologia 96:83-101(2004)
                                                                                                                                                                                                   Mycologia 96:83-101(2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |:|||| :
6 AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Elongation factor.
NON TER 1
NON TER 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
NCBI_TaxID=120395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6XE07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q6XE07
  ઠે
```

DB 2; Length 13;

36.1%; Score 26;

Query Match

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Slippers B., Crous P.W., Denman S., Countinho T.A., Wingfield B.D., Wingfield M.J.; Crous Denman S., Countinho T.A., Wingfield B.D., "Combined multiple gene genealogies and phenotypic characters differentiate several species previously identified as Botryosphaeria dothidea.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AY236890; AAP87154.1; -.
GO; GO:0003746; F:translation elongation factor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36.1%; Score 26; DB 2; Length 13; 62.5%; Pred. No. 1.18+03; cive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Fungi, Ascomycota, Pezizomycotina,
Dothideomycetes et Chaetothyriomycetes incertae sedis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13 AA; 1394 MW; D5F1817FF18C1DDD CRC64;
                                                                                                                                                                                                                     05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Translation elongation factor 1 alpha (Fragment).
                                                                                                                 13 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Search completed: April 1, 2005, 10:40:51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Botryosphaeriaceae; Botryosphaeria.
NCBI_TaxID=120390;
                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL, AY236883, AAP87147.1, EMBL, AY236884, AAP87148.1, EMBL, AY236885, AAP87149.1, EMBL, AY236887, AAP87150.1, EMBL, AY236887, AAP87151.1, EMBL, AY236889, AAP87152.1, EMBL, AY236889, AAP87152.1, EMBL, AY236889, AAP87153.1, EMBL, AY236889, AY236889, AY236889, AY256889, AY256889, AY256889, AY256889, AY256889, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mycologia 96:83-101(2004).
EMBL; AY236880; AAP87144.1;
EMBL; AY236881; AAP87145.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AY236882; AAP87146.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 36.1
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botryosphaeria parva.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6 AAELGKGS 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Elongation factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Job time : 117 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NON TER
NON TER
SEQUENCE
                                                                                                          Q6XE18
Q6XE18;
RESULT 15
                                                        Q6XE18
```

IHIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
```

Lta.	
Copyrignt (c) 1993 - 2005 Compugen Ltd.	
5002 -	model
	ΒK
2.	ng.
Û	uBj
yrıgnı	search,
Š	- protein search, using sw model
	•
	OM protein
	ŏ

Run on:

April 1, 2005, 09:33:38 ; Search time 117 Seconds (without alignments) 42.973 Million cell updates/sec

US-09-761-636A-5 72 Title:

1 CASELGKSTNTFC 13 Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2105692 seqs, 386760381 residues Searched:

Total number of hits satisfying chosen parameters:

544453

Minimum DB seq length: 0 Maximum DB seq length: 13

Post-processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

A_Geneseq_16Dec04:* 1: qeneseqp1980s:* Database :

genesqp1980s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2001s:*
geneseqp2001s:*
geneseqp2003bs:*
geneseqp2003bs:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. score

SUMMARIES

	Description	Aau04524 VEGF base	Aau04534 VEGF base	Aau04535 VEGF base	Aau04537 VEGF base	6 VEGF	Aay57039 Feline im	Abj04094 Immunoglo	'n	Aay66781 T cell an	Aab75626 HLA class	Aay66787 T cell an	Ä	_	Aab10896 Human 9D7	Aae26783 Fibrin bi	Adi36130 Fibrin bi	Aab10895 Human 9D7	Abj04091 Immunoglo			Aaw42705 Antigenic	Aam43317 Mycoplasm	Aaw34877 Human tau	Aaw34865 Human tau	Aau28829 DPI trypt
	ID	AAU04524	AAU04534	AAU04535	AAU04537	AAU04536	AAY57039	ABJ04094	ADI15745	AAY66781	AAB75626	AAY66787	ABJ04095	AAY48678	AAB10896	AAE26783	ADI36130	AAB10895	ABJ04091	ABJ04088	ABJ04570	AAW42705	AAM43317	AAW34877	AAW34865	AAU28829
	Length DB	13 4	13 4		13 4	13 4	12 3		-		•	13 3			•		6							•		Ť
, 2 2 3 4 8	!	100.0	95.8	90.3	90.3	84.7	44.4	44.4	43.1	41.7	40.3	40.3	40.3	38.9	38.9	38.9	38.9	38.9	38.9	38.9	37.5	37.5	37.5	-	37.5	37.5
	Score	72	69	65	65	61	32	32	31	30	29	29	29	28	28	28	28	28	28	28	27	27	27	27	27	27
ין ניים סם	No.	н	~	e	4	ഗ	9	7	60	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	

	Aag96997 Human com Aag96549 Human com Abp47552 N. mening
AAU26477 ABGG7372 AADA23476 AADA23476 AAU6900 AAU64092 ABJ04093 AAU08458 AAW97980 AAW97980 AAW97980 AAW97980 AAW97980	AAG96997 AAG96549 ABP47552
4 2 3 6 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 5 5 4. 4. 70
	36.1 36.1 36.1
777777777777777777777777777777777777777	7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
22222222222222222222222222222222222222	4 4 4 5 4 3

ALIGNMENTS

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. AAU04524 standard; peptide; 13 AA. VEGF based monocyclic peptide 1. (first entry) 26-SEP-2001 AAU04524; RESULT 1 AAU04524

Synthetic

Location/Qualifiers 1. .13 /note= "This bond cyclises the peptide" Key Disulfide-bond

26-JUL-2001.

WO200152875-A1

18-JAN-2001; 2001WO-US001533.

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

(LUDW-) LUDWIG INST CANCER RES

Stacker S, Hughes RA, Achen MG,

Cendron A;

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

```
peptication are used to interfere with angiogenesis,

to cyclisation are used to interfere with angiogenesis,

covarisation or lymphangiogenesis in a mammal with a condition

characterised by angiogenesis, neovascularisation or lymphangiogenesis.

Characterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy,

cerebrovascular accident, post-angioplasty restenosis, head, heat or cold

trauma, substance-induced neovascularisation of the liver, excessive

cremence-related angiogenic dysfunction, diabetes induced neovascular

sequelae, hypertension induced neovascular sequelae, or chronic liver

in fection. The peptides are also used to modulate vascular permeability

in a mammal (the mammal has a condition characterised by fluid

accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura,

cor brain. The peptides are used to image blood vessels and lymphatic

vasculature. The monomeric and bicyclic peptides are used to interfere

with at least one biological activity induced by VEGF, Cor -D and

are also used in combination with an anti-inflammatory agent, to treat a

chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 72; DB 4; Length 13; 100.0%; Pred. No. 2.8e-05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1...13
/note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04534 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VEGF based monocyclic peptide 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                          diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU04534;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
AAU04534
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
```

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine

WPI; 2001-442248/47.

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3 dimensional structure is modelled on the expose loop of human useful of producing a monomeric monocyclic peptide by a measuring betace the ethod of producing a monomeric monocyclic peptide by a measuring betace beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclishing the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, necessaries beta angiogenesis, necessaries of condition is diabetic retinopathy, psoriasis, arthropathy.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC the condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restencisis, head, heat or characterised management of post-angioplasty restencisis, head, heat or condition. The peptides are also used to modulate vascular permeability cor brain. The peptides are also used to modulate vascular permeability or brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic cor brain at least one biological activity induced by VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a cordinal physic inflammatory agent, to treat a cordinal physic cordinal arthritis, psoriasis and diapering arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                   sequence represents a monomeric monocyclic peptide of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 69; DB 4; Length 13;
Pred. No. 9e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels

    .13
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Mismatches
                                         Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU04535 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGF based monocyclic peptide 13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .8-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CATELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 92.3
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Key
Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200152875-A1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04535;
residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
ò
```

```
WO200152875-A1
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                      to cyclisation are used to interfere with angiogenesis.

neovascularisation or lymphangiogenesis in a mammal with a condition
characterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, postration or lymphangiogenesis.

The condition is diabetic retinopathy, postration or lymphangiogenesis.

Cerebrovascular accident, postrangioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                              The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bloyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior
                                                                                        Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 65; DB 4; Length 13; Pred. No. 0.00043;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels

    13
/note= "This bond cyclises the peptide"

                              Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Mismatches
                                                                                                                                                                    Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04537 standard; peptide; 13 AA.
                              Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEGF based monocyclic peptide 15.
(LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKTSNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 84.6
1es 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diabetic retinopathy
                                                           WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04537;
                                                                                                                                       residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CV WEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabet acrobs separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior or cyclisation are used to interfere with anglogenesis,

CC cyclisation or lymphangiogenesis in a mammal with a condition characterised by anglogenesis, neovascularisation or lymphangiogenesis,

CC cyclisation or lymphangiogenesis in a mammal with a condition of sdiabetic retinopathy, psoriasis, arthrogathy,

CC characterised by anglogenesis, neovascularisation of the liver, excessive hormone-related anglogenic dysfunction, diabetes induced neovascular certain angle anglogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular permeability accumulation in peripheral limbs or in lungs, peritoned laving or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic with at least one biological activity induced by VEGF. Core D and are also used in combination with an unit-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, VEGF, vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB 4; Length 13;
Pred. No. 0.00043;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                   Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                   Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU04536 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEGF based monocyclic peptide 14.
                                                                                                                                                                                                                                                           (LUDW-) LUDWIG INST CANCER RES
                                                                        18-JAN-2001; 2001WO-US001533.
                                                                                                                                            18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 84.v.,
Local 1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGRSTNSFC 13
                                                                                                                                                                                                                                                                                                                               Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-SEP-2001
26-JUL-2001.
                                                                                                                                                                                                                                                                                                                               Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU04536;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04536
```

Feline immunodeficiency virus; FIV; infection; diagnosis; gpl30; p55; immunogenic fragment; antibody; env precursor; gag precursor; cat;

Feline immunodeficiency virus antibody binding composition.

99EP-00303760. 98US-0085615P. 98US-00089878.

14-MAY-1999; L5-MAY-1998; 03-JUN-1998;

08-DEC-1999

EP962774-A1

Feline immunodeficiency virus env precursor peptide #2.

(first entry)

21-FEB-2000

AAY57039;

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human verges (by the sequence redethelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betace carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptide (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis.

CC peptides) and a cyclic peptide with a mammal with a condition characterised by anglogenesis, neovascularisation or lymphanglogenesis.

CC document is diabetic retinopathy, psoriasis, arthropathy, hemangiona, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angloplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive conformed anglogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular sequelae, phypertension induced neovascular sequelae, phypertension induced neovascular or chronic liver infection. The peptides are also used to modulate vascular permeability in a ccumulation in peripheral limps or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vascular beliance in a mammal (the mammal has a condition characterised by little or are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a characterised control or disher, or treat and the peripheral activity induced by VEGC, perions and and and and accident and and and and accident and and accident and and accident and and and and and accident and and accident and and acc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
  diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 61; DB 4; Length 13;
Pred. No. 0.0021;
Mismatches 0; Indels

    .13
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 25; Page 47; 102pp; English.
                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                             18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84.78;
76.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 76.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 13 AA;
                                                                                                                                             Disulfide-bond
                                                                                                                                                                                                                  WO200152875-A1
                                                                                                                                                                                                                                                                 26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Achen MG,
                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  residues.
```

Diagnosing Feline Immunodeficiency Virus infection.

Claim 6; Page 9; 15pp; English

O'connor TP;

Mermer B,

Groat RG,

WPI; 2000-025671/03.

(IDEX-) IDEXX LAB INC

```
ö
                                                                                                                                                                                                                                                                                                                                                                      This sequence is a fragment of feline immunodeficiency virus (FIV) glycoprotein 130. Peptides AAS7038-Y57039 are used in the invention as capture polypeptides when diagnosing FIV infection. The invention relates to an antibody binding composition which consists of an enhanced capture polypeptide, which contains an immunogenic fragment of FIV gag precursor p55, and a second fragment which is part of the env precursor gp130, and an antibody-binding detection composition. The invention also includes a device for performing an assay which determines whether a feline is inflected with FIV. The novel method is used for the diagnosis of Feline Immunodeficiency Virus infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunoglobulin binding peptide; autoimmune disease; rheumatoid arthritis; multiple sclerosis; myasthenia gravis; immunosuppressive; antirheumatic; neuroprotective.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.4%; Score 32; DB 3; Length 12; 60.0%; Pred. No. 1.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunoglobulin binding peptide #14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABJ04094 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 ELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ELGCNONOFC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 12 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200238592-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABJ04094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
```

; 0

Gaps .; 0

AAY57039 standard; peptide; 12 AA.

RESULT 6
AAY57039
ID AAY5

1 CASELGKSTNTFC 13 |||::|||||:| CASDVGKSTNTWC 13

ò 셤

Gaps

ö

us-09-761-636a-5.closed.rag

Egner R,

```
The invention relates to peptide sequences present in the synovial fluid and membranes of rheumatoid arthritis patients, arising from the CDR region of oligoclonal pathogenic T-cell antigen receptor Vbeta chains. Compositions which contain autoantigenic peptides binding specifically to T-cells expressing receptors containing the peptide sequences, which include antigen-specific immunological tolerance to rheumatoid arthritis can be used for the treatment and prevention of rheumatoid arthritis. The invention can be used for the diagnosis, treatment and prevention of rheumatoid arthritis. Sequences AAY66771-958 represent peptides from the various Vbeta chains of T cell antigen receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  I-cell antigen receptor V-beta chain CDR3 region sequences accumulated in
and/or capable of inducing CTL. The tumour antigen peptide is useful for the treatment, prevention, diagnosis and vaccine production for cancers including colorectal, stomach, buccal, renal, lung, gynecological and prostate cancer. The present sequence represents a peptide recognised by HLA-A2 restricted cytotoxic T lymphocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rheumatoid arthritis; arthrosis deformans; T-cell antigen receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 30; DB 3; Length 13; Pred. No. 4e+02;
                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                              Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      synovial membranes of rheumatoid arthritis patients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wheta chain; autoantigen; immunological tolerance.
                                                                                                                                                            Score 31; DB 7; I
Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cell antigen receptor Vbeta 5 chain peptide.
                                                                                                                                                                                                   1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 3; Page 25; 136pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                   AAY66781 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-JP002814.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41.78;
41.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98JP-00149855.
                                                                                                                                                            43.1%;
ilarity 71.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TORI ) TORII PHARM CO LID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 CASSIGTNNEOF 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yoshino
                                                                                                                                                                                                                                           7 KSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-086978/07
                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                          KLTNTYC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAZ96511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 13 AA;
                                                                                                                         Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9963084-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-APR-2000
                                                                                                                                                                                                      .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nishioka K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-DEC-1999
                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                        AAY66781;
                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                AAY667
    88888888
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a tumour antigen peptide recognised by human
leukocyte antigen (HLA)-A2 or HLA-A26 restricted cytotoxic T-cells (CTL)
                                                                                                                                                                                                                                                                                                                   The present invention relates to immunoglobulin binding peptides. These can be used to remove autoantibodies from solutions, particularly autoantibodies associated with autoimmune diseases such as rheumatism, multiple sclerosis and myasthemia gravis, from body fluids. The present sequence is a peptide of the invention
                                                                                                                                                                                                                    New immunoglobulin-binding peptides, useful for removing autoantibodies from serum, e.g. for treating rheumatism, also related solid phases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumor antigen peptides recognized by human leukocyte antigen (HLA)-A2 HLA-A26 restricted cytotoxic T-cells for treatment and prevention of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HLA-A2 restricted cytotoxic T lymphocyte recognised peptide #88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tumour; antigen; human leukocyte antigen; HLA-A26; cytotoxic T-cell; VTL; vaccine; cancer; colorectal cancer; stomach cancer; buccal cancer; renal cancer; lung cancer; gynecological cancer; prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 32; DB 5; Length 13;
Pred. No. 1.8e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer including preparation of cancer vaccines
                                                                                                                                            Б,
                                                                                                                                            Kunze
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 89; 323pp; Japanese.
                                                                                                                                          Roenspeck W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADI15745 standard; peptide; 9 AA.
                                                                                                     (AFFI-) AFFINA IMMUNTECHNIK GMBH
                                                                                                                                                                                                                                                                                  Claim 3; Page 40; 54pp; German.
                      08-NOV-2001; 2001WO-EP012933
                                                             08-NOV-2000; 2000EP-00124418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44.4%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-JUN-2002; 2002WO-JP005799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-JUN-2001; 2001JP-00177058.
21-AUG-2001; 2001JP-00250728.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6; Conservative
                                                                                                                                            Winkler D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shichijo S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-267996/26.
                                                                                                                                                                                 WPI; 2002-557447/59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CASHLGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CASELGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2003008450-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ITOH/) ITOH K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
```

ч

ò 셤

Query Match

ADI15745;

RESULT 8

Itoh K,

ö

Gaps

. 0

RESULT 10

```
The invention relates to peptide sequences present in the synovial fluid and membranes of rheumatoid arthritis patients, arising from the CDR region of oligoclonal pathogenic T-cell antigen receptor Vbeta chains. Compositions which contain autoantigenic peptides binding specifically to T-cells expressing receptors containing the peptide sequences, which include antigen-specific immunological tolerance to rheumatoid arthritis can be used for the treatment and prevention of rheumatoid arthritis. The invention can be used for the diagnosis, treatment and prevention of rheumatoid arthritis. Sequences AAY66771-958 represent peptides from the various Vbeta chains of T cell antigen receptor
                                                                                                                                                                                                                                                                                                                                                                                                                               T-cell antigen receptor V-beta chain CDR3 region sequences accumulated in synovial membranes of rheumatoid arthritis patients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunoglobulin binding peptide; autoimmune disease; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      multiple sclerosis; myasthenia gravis; immunosuppressive; antirheumatic;
Rheumatoid arthritis; arthrosis deformans; T-cell antigen receptor; Vbeta chain; autoantigen; immunological tolerance.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40.3%; Score 29; DB 3; Length 13; 66.7%; Pred. No. 5.9e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 3; Page 29; 136pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Immunoglobulin binding peptide #15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABJ04095 standard; peptide; 13 AA.
                                                                                                                                                                                     99WO-JP002814.
                                                                                                                                                                                                                           98JP-00149855.
98JP-00328761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-NOV-2001; 2001WO-EP012933
                                                                                                                                                                                                                                                                                   (TORI ) TORII PHARM CO LID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                 Yoshino S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CASSKGTST 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         σ
                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-086978/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CASELGKST
                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAZ96517.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           neuroprotective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200238592-A2.
                                                            Homo sapiens
                                                                                                     WO9963084-A1
                                                                                                                                                                                     28-MAY-1999;
                                                                                                                                                                                                                         29-MAY-1998;
                                                                                                                                                                                                                                               14-OCT-1998;
                                                                                                                                                                                                                                                                                                                              Nishioka K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-2002
                                                                                                                                            09-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABJ04095;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABJ04095
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes a method for diagnosing a disorder characterised by expression of a human cancer associated antigen (CAA) precursor (1) coded by a NA Group in nucleic acid molecule (NI) comprising contacting the biological sample with an agent (A) that specifically binds to NI, (I) or its fragment, complexed with an human leukocyte antigen (HLA) molecule and determining the interaction between the agent and NI or (I). (I) has cytostatic activity and can be used in gene therapy and vaccine production. The method can be used for treating a subject with a condition characterised by expression of (I) in cells of a subject AABTS607 and AABTS608 represent proteins from human cancer associated antigen precursors, and AABTS609 to AABTS602 represent HLA class I binding motifs in human cancer associated antigen precursors given in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Diagnosing a disorder characterized by expression of a human cancer associated antigen precursor, comprises detecting interaction of an agent with a nucleic acid molecule encoding the antigen precursor.
                                                                                                                                                                                                                                    Human; cancer associated antigen precursor; cancer associated antigen; seminoma; 'HLA; human leukocyte antigen; cytostatic; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40.3%; Score 29; DB 4; Length 10; 60.0%; Pred. No. 4.5e+02; ive 1; Mismatches 3; Indels
                                                                                                                                                                                             HLA class I binding motif in HOM-TES-84 SEQ ID NO:29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfreundschuh M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 10; Page 62; 126pp; English.
                                                                       AAB75626 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY66787 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-00346498,
                                                                                                                                                                                                                                                                                                                                                                                                                                            23-JUN-2000; 2000WO-US017207
                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tureci O,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-112465/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                 vaccine; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                             WO200100874-A2
                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-APR-2000
                                                                                                                                                      10-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                      04-JAN-2001.
                                                                                                                AAB75626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sahin U,
```

ö

Gaps

ö

(AFFI-) AFFINA IMMUNTECHNIK GMBH.

08-NOV-2000; 2000EP-00124418.

T cell antigen receptor Vbeta 10 chain peptide.

AAY66787;

AAY66787 ID AAY6 XX AC AAX6 XX DT 11-P XX XX

RESULT 11

Query Match

Matches

8 셤

```
2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                              RSTNTGC
                                           Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DE19909503-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                      26-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                            AAB10896;
                                                                                     Query Match
                                                                                                                                                                                                                                                                           RESULT 14
AAB10896
                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes peptides that selectively home to a tissue or organ. The peptides can be used for identifying an organ or tissue, for identifying a target molecule expressed by an organ or tissue or for treating an organ or tissue pathology, where the organ or tissue is selected from prostate, lung, skin, retina, pancreas, gut, ovary, adrenal gland, liver, and lymph node. The peptide bind to the membrane dipeptidase (MDP). AAV48618 to AAV49666 represent sequences which are used in the exemplification of the present invention. (Updated on 20-MAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptides which selectively home to organs or tissues, used for, e.g. identifying target ligands and for therapy of pathological conditions.
                                                                                                                                                                                                       The present invention relates to immunoglobulin binding peptides. These can be used to remove autoantibodies from solutions, particularly autoantibodies associated with autoimmune diseases such as rheumatism, multiple sclerosis and myasthenia gravis, from body fluids. The present sequence is a peptide of the invention
                                                                                                       New immunoglobulin-binding peptides, useful for removing autoantibodies from serum, e.g. for treating rheumatism, also related solid phases.
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homing peptide; organ; tissue; lung; pancreas; skin; retina; MDP; prostate; ovary; lymph node; adrenal gland; liver; gut; tumour; membrane dipeptidase.
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                Score 29; DB 5; Length 13;
Pred. No. 5.9e+02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Membrane dipeptidase-binding lung homing peptide #49.
                        Kunze R;
                                                                                                                                                                                                                                                                                                                                                                                                                          1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ruoslahti EI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 6; Page 144; 193pp; English
                        Roenspeck W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY48678 standard; peptide; 9 AA.
                                                                                                                                                                      Claim 3; Page 40; 54pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US005284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-00042107.
99US-00258754.
                                                                                                                                                                                                                                                                                                                                                                                  40.3%;
                                                                                                                                                                                                                                                                                                                                                                                                      71.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pasqualini R,
                                                                                                                                                                                                                                                                                                                                                                                                                          5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-MAR-2003 (revised)
10-DEC-1999 (first en
                        Winkler D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BURN-) BURNHAM INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-571717/48.
                                                               WPI; 2002-557447/59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ||: |||
CATHLGK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CASELGK 7
                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                           Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9946284-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rajotte D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY48678;
                     Egner R,
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
AA448678
ID AA448678
XX AA448678
XX DT 20-MF
DT 10-DI
XX DT 20-MF
DT 10-DI
XX Homi
KW Homi
KW Homi
KW Howi
K
                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
This invention describes a novel tumor-associated antigen, designated 9D7 which has cytostatic activity. The invention also describes a method for isolating (a) a polypeptide (I) that includes (S1) as part of its sequence; (b) an immunogenic protein fragment or peptide (II) derived from 9D7; (c) a pharmaceutical composition containing at least 1 of 9D7, (I) or (II) as active ingredients; (d) an isolated DNA (III) encoding a protein (IV) with the immunogenic properties of 9D7 or its fragments; (e) a recombinant DNA (III) that includes (III); and (f) antibodies (Ab) directed against 9D7, (l) or (II). 9D7, or its derived immunogenic or peptides, are used to induce a humoral and/or cellular response for use in in vivo or ex vivo immunocherapy of cancer. DNA (III) that encodes 9D7 can be used similarly and cells that express 9D7 are useful for inaging, diagnosting and monitoring cancers, also, when conjugated to cytcotoxins or radionuclide, as therapeutic agents. Peptides derived from 9D7 may also be used diagnostically to test for an immune response. 9D7-carcinoma and Hodgkin's lymphoma. AB108494-B108999 represent immunogenic fragments of the human tumor-associated antigen 9D7 which is described in
                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New tumor-associated antigen 9D7, useful e.g. for immunotherapy of cancer and for producing diagnostic or therapeutic antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lumor-associated antigen; 9D7; human; cytostatic; immunogenic;
immunotherapy; cancer; cellular anticancer vaccine; diagnostic; kidney;
lung; colon; breast; carcinoma; Hodgkin's lymphoma.
                                                                             Gaps
                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 9;
Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human 9D7 protein immunogenic fragment SEQ ID NO: 55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 28; DB 3; I
Pred. No. 1.8e+06;
Score 28; DB 2; 1 Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sommergruber W, Heider K;
                                                                             1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BOEH ) BOEHRINGER INGELHEIM INT GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                 AAB10896 standard; protein; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 6; Page 45; 50pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99DE-01009503.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          38.9%;
71.4%;
38.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                      Local Similarity 71.4 nes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-588357/56.
                                                                                                                                                  7 KSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klade C, Adolf G,
```

Gaps

```
Fibrin binding peptide, thrombosis, pulmonary embolism, atherosclerosis, myocardial infarct, ischaemia; imaging; rheumatoid arthritis, vasotropic, anaemia; hypoxia; tumour, diabetic retinopathy, autoimmune disorder; inflammatory disorder; angiogenesis; stroke, cerebroprotective.
                                                                                                                                                                                                                                                                                                                               Novel synthetic fibrin-binding moiety, useful for detecting, imaging or localizing fibrin-containing clots by magnetic resonance imaging, radioimaging and for treating diseases involving thrombus formation e.g.
Gaps
 .
 2; Indels
Mismatches
                                                                                                                                                                                                                                                                                               Sato AK;
                                                                          AAE26783 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                          Claim 4; Page 55; 89pp; English
o;
                                                                                                                                                                                                                                            21-DEC-2001; 2001WO-US049534.
                                                                                                                                                                                                                                                             23-DEC-2000; 2000US-00747403
                                                                                                                              Fibrin binding peptide #36.
                                                                                                              13-DEC-2002 (first entry)
5; Conservative
                                                                                                                                                                                                                                                                                              Wescott CR, Beltzer JP,
                                                                                                                                                                                                                                                                                                                WPI; 2002-666875/71.
                                                                                                                                                                                                                                                                              (DYAX-) DYAX CORP.
                 CASELGK
                                CGSRLGK
                                                                                                                                                                                                          WO200255544-A2
                                                                                                                                                                                         Unidentified
                                                                                                                                                                                                                            18-JUL-2002.
                 н
                                                                                            AAE26783;
                                                                                                                                                                                                                                                                                                                                                        stroke.
                                                          Matches
                 ò
                                윱
```

```
ô
                                                                                                                                                                           38.9%; Score 28; DB 5; Length 9; 50.0%; Pred. No. 1.8e+06; live 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1, 2005, 10:38:43
                                                                                                                                                                           Query Match 38.9
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                          6 GKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search completed: April Job time: 118 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                              GOESRIFC
binding peptide
                                                                                       Sequence 9 AA;
SXS
                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a synthetic fibrin binding group having affinity for fibrin. The invention is useful for detecting fibrin in a mammalian consubject which involves (a) detectably labelling the binding group; (b) administering to the subject the labelled polypeptide, and (c) detecting the labelled polypeptide in the subject. The invention is useful for treating a disease involving thrombus formation eg. deep-vein thrombosis, pulmonary embolism, cardiogenic thrombosis, atherosclerosis, myocardial infarct, reperfusion ischemia or stroke. The binding moisties are useful cor detection, imaging and localisation of fibrin-containing clots by magnetic resonance imaging, radioimaging and other imaging methods and are also useful in the diagnosis and treatment of coronary conditions where fibrin plays a role. The fibrin binding moieties are useful for detecting and diagnosing numerous pathophysiologies in which fibrin plays a role eg. peritoneal adhesions which often occur after surgery or inflammatory and neoplastic processes and are comprised of a fibrin network, fibroblasts, macrophages and new blood vessels; rheumatoid archaritis, lupus or septic archaritis which often have bits of fibrin containing tissues called rice bodies in the synovial fluid of their containing tissues called rice bodies in the synovial fluid of their containing tissues called rice bodies in the synovial fluid of their containing tissues called rice bodies in the synovial fluid of arterioles causes turbulent blood flow resulting in stress and are tringmatory disorders. Fibrin specific agents can also be cateriopathy, early or high-risk atherosclerosis and other autoimmune and cinflammatory disorders. Fibrin specific agents also could provide both direct or surrogate markers of disease models in which hypoxia and confider angiogenesis are expected to play a role. The invention is a fibrin
ö
```

Sequence 262, App Sequence 262, App Sequence 84, Appl Sequence 67, Appl Sequence 67, Appl

Sequence 626, App Sequence 19, Appl

```
08-09-142-613-22

0 US-09-141-319-262

0 US-09-791-393-262

0 US-09-791-393-262

0 US-09-791-393-262

4 US-10-314-340-84

4 US-10-314-343-67

4 US-10-304-443-67

5 US-10-415-665-12

5 US-10-415-665-12

5 US-10-415-665-13

0 US-09-795-006A-140

5 US-10-117-397-572

5 US-10-044-844-70

0 US-09-572-404B-3191

0 US-09-142-613-10

5 US-10-415-665-66

5 US-10-415-665-74

6 US-10-415-665-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/09761636A Patent No. US20020065218A1 GENERAL INFORMATION:
US-09-761-636A-5
 LENGTH:
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                   April 1, 2005, 10:40:58 ; Search time 93 Seconds (without alignments) 46.352 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published Applications Ast (cgn2_6/ptodata/2/pubpaa/US07_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US07_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US06_PUBCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US06_PUBCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US06_PUBCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US08_PUBCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US08_PUBCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US08_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US08_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US08_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US09_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US09_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US09_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US09_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US09_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10D_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10D_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10D_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10D_PUBCCMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCCMB.ppp:*
                  GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                              1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Published_Applications_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                    - protein search, using sw model
                                                                                                                                                                                                                                                                            Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                          1 CASELGKSTNTFC 13
                                                                                                                                                                                    US-09-761-636A-5
72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>DB</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0 Maximum DB seq length: 13
                                                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score
                                                                                    OM protein
                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĕ
```

Sequence 265, App Sequence 10, Appl Sequence 13, Appl Sequence 13, Appl Sequence 572, App Sequence 572, App Sequence 111, App Sequence 12, App Sequence 12, Appl Sequence 12, Appl Sequence 12, Appl Sequence 12, Appl Sequence 128, Appl Sequence 14, Appl Sequence 66, Appl Sequenc

Sequence 231, App Sequence 13, Appl

Sequence 231,

ö Gaps APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/276,293
PRIOR PILING DATE: 2000-01-18
PRIOR PLILING DATE: 2000-01-18
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PALENTIN VETSION 3.0 ; 0 Length 13; Indels 100.0%; Score 72; DB 9; L 100.0%; Pred. No. 9.8e-06; iive 0; Mismatches 0; 1 CASELGKSTNTFC 13 Best Local Similarity 100. Matches 13; Conservative TYPE: PRT ORGANISM: Homo sapiens US-09-761-636A-5 Query Match ઠે g

55, Appl 170, App

Sequence Sequence

Sequence 89, Sequence 14, Sequence 15, Sequence 55,

US-09-761-636A-5 US-09-761-636A-15 US-09-761-636A-16 US-09-761-636A-17 US-10-761-636A-17 US-10-761-665-14 US-10-761-665-14 US-10-208-304-14 US-10-208-304-14 US-10-34-974-55 US-10-34-974-55 US-10-34-974-55 US-10-415-665-8 US-10-415-665-8

99 99 117 117 117 117 117

100.0 95.8 90.3 90.3 84.7 44.4 43.1 41.7 40.3

Sequence 5, Appli Sequence 15, Appl Sequence 16, Appl Sequence 18, Appl Sequence 17, Appl

RESULT 2 US-09-761-636A-15

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 14, Application US/10415665
Publication No. US20040087765A1
GENERAL INFORMATION:
APPLICANT: Egner, Ralf
APPLICANT: Winze, Rudolf
APPLICANT: Winkler, Dirk
APPLICANT: Roenspeck, Wolfgang
TITLE OF INVENTION: Peptides, Preparation Thereof and Use Thereof for TITLE OF INVENTION: Binding Immunoglobulins
FILE REFERENCE: P68842USO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:

APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: BYANGER, Steven
APPLICANT: TAKEN STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/1761,636A
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PILING DATE: 2000-01-18
PRIOR PELING DATE: 2000-01-18
PRIOR PELING DATE: 2000-01-18
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VEFEION 3.0
SEQ ID NO 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                         APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION UNDBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR PPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
FRIOR PELING DATE: 2000-01-18
FRIOR FILING DATE: 2000-01-18
SOFTWARE: PATENTING VESTION NUMBER: US 60/204,590
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VESTION 3.0
SEQ ID NO 18
                                                                                                                                                                                                                                                                                                                                                                                                          Score 65; DB 9; Length 13;
Pred. No. 0.00016;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 61; DB 9; Length 13;
Pred. No. 0.00083;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 17, Application US/09761636A
; Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                            LENGTH: 13
TYPE: PRT
ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                        90.3%;
84.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.7%;
76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 84.07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CASELGRSTNSFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 76.9
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                 US-09-761-636A-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-761-636A-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-761-636A-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
US-10-415-665-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                       APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGP-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-01-18
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Version 3.0
SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ## Sequence 16, Application US/09761636A
| Patent No. US20020065218A1
| Patent No. US20020065218A1
| GENERAL INFORMATION:
| APPLICANT: ACHEN, Marc
| APPLICANT: FINCHEN, Steven
| APPLICANT: HUGHES, Richard
| APPLICANT: CENDRON, Angela
| TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
| FILE REFERENCE: 1064/4856 Achen et al
| CURRENT FILING DATE: 2001-01-18
| PRIOR FILING DATE: 2001-01-18
| PRIOR FILING DATE: 2000-01-18
| PRIOR PLING DATE: 2000-01-18
| NUMBER OF SEQ ID NOS: 34
| SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 69; DB 9; Length 13;
Pred. No. 3.3e-05;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 65; DB 9; I
Pred. No. 0.00016;
2; Mismatches 0;
Sequence 15, Application US/09761636A
Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 18, Application US/09761636A
Patent No. US20020065218A1
GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 92.3%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 84.6%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CATELGKSINIFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CASELGKTSNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-09-761-636A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-761-636A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
US-09-761-636A-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 16
                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
```

ð g 0

ò 셤

ö

US-10-415-665-14

Query Match

ઠે

SEQ ID NO 14 LENGTH: 13

```
APPLICANT: Kunze, Rudolf
APPLICANT: Kunze, Rudolf
APPLICANT: Kunze, Rudolf
APPLICANT: Roenspeck, Wolfgang
TITLE OF INVENTION: Peptides, Preparation Thereof and Use Thereof for
TITLE OF INVENTION: Painding Immunoglobulins
FILE REFERENCE: P68842USO
CURRENT APPLICATION NUMBER: US/10/415,665
CURRENT APPLICATION NUMBER: D2/03-10-16
PRIOR FILING DATE: 2003-10-16
PRIOR FILING DATE: 2001-11-08
PRIOR FILING DATE: 2001-11-08
NUMBER OF SEQ ID NOS: 88
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41.7%; Score 30; DB 14; Length 10; 87.5%; Pred. No. 1.7e+02; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Description of the artificial sequence: OTHER INFORMATION: synthetic peptide having affinity for OTHER INFORMATION: immunoglobulins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
     APPLICANT: Yi, Youngsuk
TITLE OF INVENTION: NOVEL HUMAN SEPTIN AND USES THEREFOR
FILE REFERENCE: 11613-42USW1
CURRENT APPLICATION NUMBER: US/10/208,304
CURRENT FILING DATE: 2002-07-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 71.4%; Score 29; DB 15; Similarity 71.4%; Pred. No. 3.3e+02; 5; Conservative 1; Mismatches 1;
                                                                                                                           PRIOR APPLICATION NUMBER: PCT/USO1/02466;
PRIOR FILING DATE: 2001-01-25;
PRIOR APPLICATION NUMBER: US 60/178,866
PRIOR PILING DATE: 2000-01-29;
PRIOR PILING DATE: 2000-01-29;
NUMBER OF SEQ ID NOS: 16
SOFTWARE: Patentin version 3.1
SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-415-665-15
Sequence 15, Application US/10415665
Publication No. US20040087765A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-034-974-55
; Sequence 55, Application US/10034974
; Publication No. US20030143158A1
; GENERAL INFORMATION:
; APPLICANT: DYAX CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Egner, Ralf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CASELGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||: |||
2 CATHLGK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 ASGLGKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-415-665-15
                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-208-304-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Designed peptide recognized by HLA-A2 restricted cytokine T
OTHER INFORMATION: lymphocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                            44.4%; Score 32; DB 15; Length 13; 85.7%; Pred. No. 99;
                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Description of the artificial sequence: OTHER INFORMATION: synthetic peptide having affinity for OTHER INFORMATION: immunoglobulins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43.1%; Score 31; DB 17; Length 9; 71.4%; Pred. No. 1.3e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: ITOH, Kyogo
APPLICANT: ITOH, Kyogo
APPLICANT: ITOH, Kyogo
ITILE OF INVENTION: TUMOR ANTIGEN
FILE REFERENCE: Q-78382
CURRENT APPLICATION WUMBER: US/10/734,049A
CURRENT FILING DATE: 2000-12-12
PRIOR APPLICATION NUMBER: PCT/JP02/05799
PRIOR PELING DATE: 2001-06-11
PRIOR PELING DATE: 2001-06-12
PRIOR PELING DATE: 2001-06-12
PRIOR PELING DATE: 2001-06-13
PRIOR PILING DATE: 2001-06-12
PRIOR PILING DATE: 2001-06-12
NUMBER OF SEQ ID NOS: 408
NUMBER OF SEQ ID NOS: 408
SOFTWARE: PatentIn version 3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
CURRENT APPLICATION NUMBER: US/10/415,665
CURRENT FILING DATE: 2003-10-16
PRIOR APPLICATION NUMBER: PCT/EP01/12933
PRIOR FILING DATE: 2001-11-08
PRIOR PLICATION NUMBER: EP00124418.5
PRIOR PRIOR FILING DATE: 2000-11-08
NUMBER OF SEQ ID NOS: 88
SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-734-049A-89; Sequence 89, Application US/10734049A; Publication No. US20050042624A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 14, Application US/10208304
Publication No. US20030124571A1
GENERAL INFORMATION:
APPLICANT: Larisch, Sarit
APPLICANT: Lechleider, Robert J.
APPLICANT: Rim, Seong-Jin
APPLICANT: Roberts, Anita B.
                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 KSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | |||:|
KLTNTYC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CASELGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CASHLGK 8
```

ö

Gaps

ö

US-10-734-049A-89

Query Match

SEQ ID NO 89

RESULT 8 US-10-208-304-14

ö

Gaps

ô

```
TITLE OF INVENTION: Binding Immunoglobulins
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASELGK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 CAEHLGK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAKHLGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-573-822C-626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-10-415-665-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-415-665-11
                                                                                                                                                                                                                               LENGIH: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                 APPLICANT: Sato, Agron K.

TITLE OF INVENTION: FIBRIN BINDING MOIETIES USEFUL AS IMAGING AGENTS
TITLE OF INVENTION: FIBRIN BINDING MOIETIES USEFUL AS IMAGING AGENTS
FILE REFRENCE: DYX-024.1 DYX
CURRENT APPLICATION NUMBER: US/10/034,974
CURRENT FILING DATE: 2001-12-21
NUMBER OF SEQ ID NOS: 56
SOFTWARE: Patentin version 3.1
SEQ ID NO 55
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Egner, Ralf
APPLICANT: Kunze, Rudolf
APPLICANT: Winkler, Molfgang
APPLICANT: Roenspeck, Wolfgang
TITLE OF INVENTION: Peptides, Preparation Thereof and Use Thereof for
                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1701, Application US/10838289
Fublication No. US20050058603A1
GENERAL INFORMATION:
APPLICANT: Gao, Jinming
APPLICANT: Ai, Hua
TITLE OF INVENTION: NANOSHELLS
FILE REFERENCE: CWRU-P01-040
CURRENT APPLICATION NUMBER: US/10/838,289
CURRENT FILING DATE: 2004-05-03
PRIOR RIPLICATION NUMBER: US 60/502,429
PRIOR PELICATION NUMBER: US 60/467,389
PRIOR PLILNG DATE: 2003-05-02
PRIOR PLILNG DATE: 2003-05-02
NUMBER OF SEQ ID NOS: 756
SOCTHARE: PASESEQ for Windows Version 4.0
SEQ ID NO 170
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                 38.9%; Score 28; DB 14; Length 9; 50.0%; Pred. No. 1.38+06; Live 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38.9%; Score 28; DB 17; Length 9; larity 71.4%; Pred. No. 1.3e+06; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: fibrin binding polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ) OTHER INFORMATION: Lung homing peptide US-10-838-289-170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-415-665-8
; Sequence 8, Application US/10415665
; Publication No. US20040087765A1
; GENERAL INFORMATION:
Beltzer, James P.
Wescott, Charles R.
                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 GKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
-hes 5; Conserv?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |: : |||
2 GOESRTFC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RSTNTGC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
US-10-838-289-170
                                                                                                                                                                                                                                                                                                                                          US-10-034-974-55
                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: RUZZE, Rudolf
APPLICANT: Winkler, Dark
APPLICANT: Winkler, Dirk
APPLICANT: Winkler, Dirk
APPLICANT: Winkler, Dirk
APPLICANT: Winkler, Dirk
APPLICANT: Roenspeck, Wolfgang
TITLE OF INVENTION: Bending Immunoglobulins
FILE REFERENCE: P6842USG
CURRENT FILING DATE: 2003-10-16
PRIOR PHILNG DATE: 2003-10-16
PRIOR FILING DATE: 2001-11-08
PRIOR FILING DATE: 2001-11-08
PRIOR FILING DATE: 2001-11-08
PRIOR FILING DATE: 2001-11-08
NUMBER OF SEQ ID NOS: 88
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38.9%; Score 28; DB 15; Length 13; 71.4%; Pred. No. 5e+02; cive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38.9%; Score 28; DB 15; Length 13; 71.4%; Pred. No. 5e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                   FEATURE:

OTHER INFORMATION: Description of the artificial sequence:
OTHER INFORMATION: synthetic peptide having affinity for
CTHER INFORMATION: immunoglobulins
US-10-415-665-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of the artificial sequence: OTHER INFORMATION: synthetic peptide having affinity for OTHER INFORMATION: immunoglobulins
FILE REFERENCE: P68842USO
CURRENT APPLICATION NUMBER: US/10/415,665
FURRENT FILING DATE: 2003-10-16
PRIOR APPLICATION NUMBER: PCT/EP01/12933
PRIOR FILING DATE: 2001-11-08
PRIOR PLILING DATE: 2001-11-08
NUMBER: CF SEQ ID NOS: 88
SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 626, Application US/09573822C; Publication No. US20030199011A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11, Application US/10415665
Publication No. US20040087765A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 71.4
Matches 5; Conservative
```

```
FEATURE:
OTHER INFORMATION: Sequence located in MG309 at 847-856 and may interact with Sequen
US-09-573-822C-626
APPLICANT: Proteom Ltd
TITLE OF INVENTION: Complementary peptide ligands generated from microbial genome seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 19, Application US/10271343

Publication No. US20030166003A1

GENERAL INFORMATION:

APPLICANT: Cochran, Andrea G.

APPLICANT: Stelton, Nicholas J.

APPLICANT: Stelton, Nicholas J.

APPLICANT: Stelton, Nicholas J.

TITLE OF INVENTION: A STRUCTURED PEPTIDE SCAFFOLD FOR DISPLAYING TURN LIBRARIES

TITLE OF INVENTION: ON PHAGE

FILE REFRERENCE: 1669.116011

CURRENT APPLICATION NUMBER: US/10/271,343

CURRENT FILING DATE: 2000-06-13

FRIOR APPLICATION NUMBER: US 69/592,695

FRIOR APPLICATION NUMBER: US 60/139,017

PRIOR APPLICATION NUMBER: US 60/139,017

FRIOR PILING DATE: 1999-06-14

NUMBER OF SEQ ID NOS: 60

SOFTWARE: PATENTIN Version 3.1

SEQ ID NO 19
                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: MISC FEATURE LOCATION: (3)._(3)
OTHER INFORMATION: Xaa is independently Trp, Tyr, Leu, Val, or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                o
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                          Score 27; DB 10; Length 10;
Pred. No. 5.7e+02;
5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 27; DB 14; Length 10;
Pred. No. 5.7e+02;
0; Mismatches 4; Indels
                                              FILE REFERENCE: Microbe patent Creaming Street CURRENT APPLICATION NUMBER: US/09/573,822C CURRENT FILING DATE: 2000-05-18 NUMBER OF SEQ ID NOS: 804 SOFTWARE: ProtPatent version 1.0 SEQ ID NO 6.26 LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: April 1, 2005, 10:51:21
Job time : 93 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: MISC_FEATURE
LOCATION: (5)...(5)
CTHER INFORMATION: Xaa is D-pro
US-10-271-343-19
                                                                                                                                                                                                               TYPE: PRT ORGANISM: mycoplasma genitalium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Turn Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 55.6%;
Matches 5; Conservative (
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 40.0%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::| ::||:|
1 AKLSRTTNSF 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CASELGKST 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CTXEXGKLT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-271-343-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

OLISO) MANE BLANK (USP10)

40328, A 55544, A 4992, Ap 58767, A 43417, A 43417, A 55420, A 55420, A 7288, Ap

Sequence Sequence Sequence Sequence Sequence Sequence Sequence

Sequence Sequence Sequence

Sequence Sequence Sequence Sequence

Sequence Sequence

OM protein

Run on:

Sequence:

Searched:

Database

Result Š.

```
Sequence 5, Application US/08499215

APPLICANT: Saeki, Hisashi

APPLICANT: Miura, Akira

TITLE OF INVENTION: BIOLOGICAL DEGRADATIVE

TITLE OF INVENTION: TREATMENT OF CHLORINE-SUBSTITUTED ETHYLENE

NUMBER OF SEQUENCES: 5

CORRESPONDENCE ADDRESS:

ADDRESSEE: Sughrue, Mion, Zinn, Macpeak & Seas

STREET: 2100 Pennsylvania Avenue

CITY: N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 41; DB 1; Length 342; Pred. No. 33; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30 SOFTWARE: & WordPerfect version 5.1 SOFTWARE: APPLICATION DATA:
APPLICATION NUMBER: US/08/499,215 FILING DATE:
US-08-609-049A-28
US-09-170-996-12
US-09-411-697-169
US-09-461-697-169
US-09-461-697-167
US-09-270-767-40328
US-09-270-767-55544
US-09-270-767-40204
US-09-270-767-40204
US-09-270-767-5420
US-09-270-767-60204
US-09-270-767-60204
US-09-270-767-60204
US-09-270-767-60204
US-09-6021-976-988
US-09-60-270-3
US-09-60-271-3
US-09-60-271-3
US-09-60-271-3
US-09-60-271-3
US-09-60-271-3
                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PAPLICATION NUMBER: JP Hei-6-179689
FILING DATE: 08-UUL-1994
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 342 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: Washington D.C.
COUNTRY: U.S.A.
ZIP: 20037-3202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 59896, Application US/09270767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          n 78.8%;
Similarity 77.8%;
7; Conservative (
   1876
1876
1876
200
200
320
3320
344
621
762
762
762
1253
1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CASVPLEPC 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 7; Conserv
    RESULT 2
US-09-270-767-59896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5, Appli
Sequence 10, Appl
Sequence 10, Appl
Sequence 6901, Ap
Sequence 2, Appli
Sequence 4372, A
Sequence 13375, A
Sequence 21872, A
Sequence 21872, A
Sequence 2187, Ap
Sequence 2187, Ap
Sequence 2187, Appl
Sequence 7027, Ap
Sequence 7027, Appl
Sequence 11, Appl
Sequence 2315, Appl
Sequence 6609, Ap
Sequence 16194, Ap
Sequence 16194, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                        April 1, 2005, 07:04:23 ; Search time 19.9726 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued Patents AA:*

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
                     GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-499-215-5
US-09-270-76-59896
US-09-673-763-10
US-09-673-763-10
US-09-328-35-6901
US-09-328-35-6901
US-09-252-991A-27872
US-09-489-039-13375
US-09-489-039-13375
US-09-270-767-34100
US-09-270-767-34100
US-09-270-767-34100
US-09-270-767-34100
US-09-270-767-34100
US-09-252-991A-29960
US-09-949-016-7027
US-09-357-251-37
US-09-359-016-7669
US-09-949-016-7669
US-09-949-016-6669
US-09-949-016-6669
US-09-902-540-116-6669
US-09-902-540-116-6669
US-09-902-540-116-6669
US-09-902-540-116-6669
                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                      513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                 - protein search, using sw model
                                                                                                                                                                                                                                                       Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                          US-09-761-636A-14
52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match Length DB
                                                                                                                                                                                                         1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
```

ö

Gaps

ö

```
157 CISLPIISC 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273 CISVPLFHC 281
                                                                                                                                                                                                                                                                                                               1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
US-09-328-352-6901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-328-352-6901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-341-461-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-673-763-10

JSEQUENCE 10, Application US/09673763

Patent No. 6746676

Patent No. 6746676

JERNEAL INFORMATION:

APPLICANT: Oregon State University

TITLE OF INVENTION: Methods of use for infection-specific INCA, INCB, and

TITLE OF INVENTION: MCC proteins of Chlamydia

FILE REPERENCE: 52297

CURRENT APPLICATION NUMBER: US/09/673,763

CURRENT PILING DATE: 2000-10-16

PRIOR APPLICATION NUMBER: 60/082,588

PRIOR FILING DATE: 1998-04-21

PRIOR FILING DATE: 1998-04-21
                                    APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: FILE REFERENCE: FILE REFERENCE: FILE REFERENCE: FILE REFERENCE: TO 8709/270,767
CURRENT APPLICATION NUMBER: US/09/270,767
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 59896
LENGTH: 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WS-09-341-461-10

Sequence 10, Application US/09341461

Sequence 10, Application US/09341461

Sequence 10, Septiment  
Sequence 10, Septiment  
Sequence 10, Sequence 11, TITLE OF INVENTION: and Uses Thereof 11 TITLE OF INVENTION: and Uses Thereof 11 TITLE OF INVENTION: and Uses Thereof 11 CURRENT FILING DATE: 2000-07-20  
PRIOR APPLICATION NUMBER: DST/09/341,461  
CURRENT FILING DATE: 1999-01-21  
NUMBER OF SEQ ID NOS: 40  
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: amino acid sequence of rat cubilin EGF5 repeat US-09-341-461-10
                                                                                                                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                       Score 40; DB 4; Length 86;
Pred. No. 12;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.1%; Score 38; DB 4; Length 44; 66.7%; Pred. No. 13; ative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: Xaa means any amino acid US-09-270-767-59896
                                                                                                                                                                                                                                                             ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                         76.9%;
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11 CLSVPFPPC 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12 CSQAPLVPC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 6; Conserv
Patent No. 6703491
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
```

```
Sequence 6901, Application US/09328352
Patent No. 6562958
GENERAL INFORMATION:
TITLE OF INVENTION: BULBIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
TITLE OF INVENTION: BULBIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
TITLE OF INVENTION: BULBIC ACID AND AMINO ACID SEQUENCES RELATING TO CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
NUMBER OF SEQ 1D NOS: 8252
SEQ 1D NO 6901
LENGTH: 589
                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-341-461-2

Sequence 2, Application US/09341461

Sequence 2, Application US/09341461

Patent No. 658639

GENERAL INFORMATION:

APPLICANT: Hammond, Timothy G.

APPLICANT: Verroust, Pierre J.

TITLE OF INVENTION: Cubilin Protein, DNA Sequences Encoding Cubilin

TITLE OF INVENTION: and Uses Thereof

FILE REFERENCE: D6148

CURRENT PELLON NUMBER: US/09/341,461

CURRENT FILING DATE: 2000-07-20

PRIOR APPLICATION NUMBER: PCT/US99/01259

PRIOR APPLICATION NUMBER: PCT/US99/01259

NUMBER OF SEQ ID NOS: 40

SEQ ID NO 2

LENGTH: 3623
                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: amino acid sequence of rat cubilin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73.1%; Score 38; DB 4; Length 3623; 66.7%; Pred. No. 1.1e+03; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                            Score 38; DB 4; Length 198;
Pred. No. 58;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 589;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 38; DB 4; Length 589
Pred. No. 1.7e+02;
0; Mismatches 2; Indels
PRIOR APPLICATION NUMBER: 60/086,450
PRIOR FILING DATE: 1998-05-22
NUMBER OF SEQ ID NOS: 24
SOFTMARE: PatentIn Ver. 2.0
SEQ ID NO 10
LENGTH: 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Acinetobacter baumannii
                                                                                                                                                                                                                                            73.1%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 73.1%;
Best Local Similarity 77.8%;
Matches 7; Conservative
                                                                                                                                              ; TYPE: PRT
; ORGANISM: Chlamydia psittaci
US-09-673-763-10
                                                                                                                                                                                                                   Query Match
Best Local Similarity 55.60;
Trhes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
```

ઠે 셤

```
GENERAL INFORMATION:

APPLICANT:

APPLICANT:

Gary Breton et. al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND THERAPEUTICS

FILE REFERENCE: 2709.2004001

CURRENT APPLICATION NUMBER: US,09/489,039A

CURRENT APPLICATION NUMBER: US 60/117,747

PRIOR APPLICATION NUMBER: US 60/117,747

NUMBER OF SEQ ID NOS: 14342

SEQ ID NO 13375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 19117, Application US/09270767

Patent No. 6703491
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF EEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 49317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nuclei acids and proteins of Drosophila melanogaster
TITLE OF INVENTION: Nuclei acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 34100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67.3%; Score 35; DB 4; Length 48; 66.7%; Pred. No. 42; tive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 36; DB 4; I
Pred. No. 2.8e+02;
0; Mismatches 3.
                                                                                                                             ; Sequence 13375, Application US/09489039A; Patent No. 6610836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-270-767-34100
; Sequence 34100, Application US/09270767
; Patent No. 6703491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69.2%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Conservative
37 CTSIPGIPC 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 CYYFPLVPC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 CISMSKVPC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                               US-09-489-039A-13375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-489-039A-13375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
US-09-270-767-49317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-270-767-34100
                                                                                                                                                                                                                                                                                                                                                                                                                       LENGIH: 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 27812, Application US/09252991A
; Sequence 27812, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: NUMBER: US/09/252,991A
; TITLE OF INVENTION NUMBER: US/09/252,991A
; CURRENT APPLICATION NUMBER: US/0/074,788
; PRIOR FILING DATE: 1999-02-18
; PRIOR FILING DATE: 1998-02-18
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 27872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                        Sequence 4539, Application US/09513999C
; Sequence 4539, Application US/09513999C
; Retent No. 6783961
; GENERAL INFORMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
; APPLICANT: Duclert, A.
; APPLICANT: Glordano, J.Y.
; TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
; Patent No. 6783961
; FILE REFERENCE: 59.US2.REG
; CURRENT APPLICATION NUMBER: US/09/513,999C
; CURRENT PILING DATE: 1999-02-24
; PRIOR FILING DATE: 1999-02-26
; NUMBER OF SEQ ID NOS: 36681
; SEQ ID NO 4539
; SEQ ID NO 4539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 37; DB 4; Length 168;
Pred. No. 71;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      71.2%; Score 37; DB 4; Length 64; 77.8%; Pred. No. 27; 2; Indels tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: -19..-1
OTHER INFORMATION: score 3.9
OTHER INFORMATION: seq SVCLCPCLNKGQS/EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Xaa= * or Trp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71.2%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match
Best Local Similarity 77.8-
نام 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           313 ČSQAPĽVPC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 CISVCLCPC 13
1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-09-252-991A-27872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-252-991A-27872
                                                                                                           RESULT 7
US-09-513-999C-4539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-513-999C-4539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 37
```

ઠે 吕

```
Sequence 7027, Application US/09949016

Fatent No. 681239

GENERAL INFORMATION

GENERAL INFORMATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT FILING DATE: 2000-04-14

FRICE REPERIOR (2001-10-20)

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,756

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

WUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 7027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67.3%; Score 35; DB 4; Length 370; 100.0%; Pred. No. 3.3e+02; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Wood, Marion
APPLICANT: Shenk, Michael A.
APPLICANT: Shenk, Michael A.
APPLICANT: McGrath, Annette
APPLICANT: McGrath, Annette
TITLE OF INVENTION: Compositions and Methods for the
TITLE OF INVENTION: Modification of Gene Transcription
TITLE OF INVENTION: Modification of Gene Transcription
FILE REFERENCE: 11000.1021C1U
CURRENT APPLICATION NUMBER: US/09/640,211A
CURRENT FILING DATE: 2000-08-16
NUMBER OF SEQ ID NOS: 2368
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67.3%; Score 35; DB 4;
85.7%; Pred. No. 5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search completed: April 1, 2005, 09:36:20 Job time : 20.9726 secs
                                                                                                                                                                 Sequence 823, Application US/09640211A Patent No. 6833446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Eucalyptus grandis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 85.77
....hes 6; Conservative
          262 VPLVPC 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              262 VPĽVPC 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 SVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 VPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Human
                                                                                                                                      US-09-640-211A-823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-640-211A-823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-7027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-949-016-7027
          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-09-252-991A-20960
is equence 20960, Application US/09252991A
is experience 20960, Application US/0925291A
is title OF INVENTION:
is t
                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 309;
                                                                                                                                                             Score 35; DB 4; Length 48; Pred. No. 42; 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 35; DB 4; Length 90; Pred. No. 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Wood, Marion
APPLICANT: Shenk, Michael A.
APPLICANT: Shenk, Michael A.
APPLICANT: Glenn, Matthew
ITILE OF INVENTION: Compositions and Methods for the
ITILE OF INVENTION: Compositions of Gene Transcription
FILE REFERENCE: 11000.1021C1U
CURRENT APPLICATION NUMBER: US/09/640,211A
CURRENT FILING DATE: 2000-08-16
NUMBER OF SEQ ID NOS: 2368
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             h Similarity 100.0%; Pred. No. 2.7e+02; 6; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
26.09-640-211A-2187
; Sequence 2187, Application US/09640211A
; Patent No. 6833446
                          ; TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-09-270-767-49317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                          Query Match
Best Local Similarity 66.7%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 55.6%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: Eucalyptus grandis
US-09-640-211A-2187
                                                                                                                                                                                                                                                                                                                                     9 CISMSKVPC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12 CASCPVTPC 20
                                                                                                                                                                                                                                                                                          1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-252-991A-20960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 2187
LENGTH: 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

.. 0

Gaps

ò

Gaps

4 VPLVPC 9

us-09-761-636a-13.open.rai

```
RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 33, Appl
Sequence 43, Appl
Sequence 143, App
Sequence 2993, App
Sequence 2605, App
Sequence 2666, App
Sequence 26663, App
Sequence 19384, App
Sequence 19384, App
Sequence 1963, App
Sequence 1963, App
Sequence 10963, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 44459, A
Sequence 32454, A
Sequence 23169, A
Sequence 23382, A
Sequence 18804, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128, App
58, Appl
58, Appl
58, Appl
26, Appl
27, Appl
26, Appl
57, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                       April 1, 2005, 07:04:23 ; Search time 22.1918 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-270-767-44459
US-09-252-991A-23454
US-09-252-991A-23169
US-09-252-991A-231804
US-09-252-991A-133
US-08-313-33
US-08-549-008-43
US-08-513-990C-8157
US-09-513-999C-8157
US-09-513-999C-8157
US-09-525-991A-25653
US-09-525-991A-25663
US-09-525-991A-19384
US-09-925-991A-19384
US-09-925-991A-19384
US-09-318-452A-145
US-09-318-452A-145
US-09-314-954-58
US-09-314-954-58
US-09-314-954-58
US-09-314-954-58
US-09-314-954-58
US-09-314-955-50
US-09-314-955-50
US-09-314-955-50
US-09-314-955-50
US-09-314-955-50
US-09-314-955-50
                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                    513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                          protein search, using sw model
                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patents AA:*
                                                                                                                                                                                                                                                                                                                                                                                               length: 0
length: 2000000000
                                                                                                                                                                                   US-09-761-636A-13
56
                                                                                                                                                                                                                        1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ........
                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                          ı
                                                                        OM protein
                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
No.
                                                                                                           Run
```

```
WESOUR 2 2 - 991A-32454

Sequence 32454, Application US/09252991A

Sequence 32454, Application US/09252991A

Sequence 32454, Application US/09252991A

Sequence 32454, Application US/09252991A

GENERAL INFORMATION:

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

FILE REPERENCE: 107196-136

CURRENT PILING DATE: 1999-02-18

FRIOR PELING DATE: 1998-02-18

FRIOR PELING DATE: 1998-02-18

FRIOR PILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 32454

LENGTH: 244

TYPE: PRT

ORGANISM: Psecudomonas aeruginosa
US-09-252-991A-32454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                        APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILLE REFERENCE: FILE REFERENCE: FILE REFERENCE: FILE REFERENCE: FILE REFERENCE: TOSO9/270,767
CURRENT APPLICATION NUMBER: US/09/270,767
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 44459
LENGTH: 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                        Sequence
Sequence
Sequence
Sequence
                                                                                                 Sequence
Sequence
Sequence
Sequence
                                                                                                                                                       Sequence
                      Sequence
Sequence
Sequence
                                                                                                                                              Sequence
                                                                                                                                                                                          Sequence
                                                                                                                                                                              Sequence
            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Length 198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
US-09-334-923A-26
US-09-334-923A-57
US-09-334-954A-26
US-09-334-954A-57
US-09-571-013-30
US-09-571-013-39
US-09-571-013-58
US-09-334-951-55
US-09-334-951-55
US-09-334-951-55
US-08-722-719-59
US-08-722-719-59
US-08-722-719-59
US-08-722-719-59
US-08-722-719-59
US-08-334-951-56
US-09-334-951-56
US-09-334-951-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 40; DB '
Pred. No. 34;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Xaa means any amino acid
US-09-270-767-44459
                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                            Sequence 44459, Application US/09270767
Patent No. 6703491
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122 ČĽSVPFPXPČ 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 6; Conserv
  66116661166611666116661166611666116661166611666116661166611666116661166611666116661166611666116661166611666116
                                                                                                                                                                                                                                                                    US-09-270-767-44459
```

```
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 50.0
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | |:|: :||
137 CSSLPMRLPC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                      US-09-252-991A-18804
  US-09-252-991A-18804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-331-383-33
                                                                                                                                                                                                                                                                                                                                       LENGTH: 154
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: MARC J. Rubenfield et al.
APPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REPERENCE: 107196-136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR PELICATION NUMBER: US 60/074,788
PRIOR PELICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 23382, Application US/09252991A

Sequence 23382, Application US/09252991A

Sequence 23382, Application US/09252991A

Setent No. 6551795

GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

FILLE REPRENCE: 107196, 138

CURRENT APPLICATION NUMBER: US 60/074, 788

PRIOR APPLICATION NUMBER: US 60/094, 190

PRIOR APPLICATION NUMBER: US 60/094, 190

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

SEQ ID NO 23382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                              ö
                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .,
                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 69.6%; Score 39; DB 4; Length 306; Best Local Similarity 70.0%; Pred. No. 77; Matches 7; Conservative 0; Mismatches 3; Indels
                       DB 4; Length 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66.1%; Score 37; DB 4; Length 142; 50.0%; Pred. No. 72; ive 2; Mismatches 3; Indels
                                                              Indels
                                                            2; Mismatches
                     69.6%; Score 39; 60.0%; Pred. No.
                                                                                                                                                                                                                                                  Sequence 23169, Application US/09252991A Patent No. 6551795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 50.0
Matches 5; Conservative
                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 CWSVPSSAPC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLSVPC 10
                                                                                                   1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89 CLPPPISAPC 98
                                                                                                                                            24 CCSRPMAVPC 33
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
US-09-252-991A-23382
                                                                                                                                                                                                                               US-09-252-991A-23169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-252-991A-23169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-252-991A-23382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                        ઠે
                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

RESULT 5

```
Sequence 1889, Papel Catton US/09222991A

DEREMBLAND INTERMATION: VUCLEIC KAN AND ANION ACID SEQUENCES RELATING TO PSEUDOWONAS
TITLE OF INVENTION: AUGUSTOR. NAD ANION ACID SEQUENCES RELATING TO SEGUENCES RELATING TO SEQUENCES AND THERAPEUTICS
TITLE OF INVENTION: NUMBER: 0199-0219-039-04

RECORRESPONDENCE: 1999-02-199-039-04

RECORRESPONDENCE: 1999-02-199-03-04

RECORRESPONDENCE: 1999-02-199-03-04

RECORRESPONDENCE: 1999-02-199-03-04

RESULT 6

RESULT 7

RESULT 7

RESULT 7

RESULT 7

RESULT 7

RESULT 8

RE
```

a

```
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
HAPLICANT: MARC J. Rubenfield et al.
APPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196-136
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR PILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-0-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 29933
LENGTH: 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64.3%; Score 36; DB 4; Length 92; 55.6%; Pred. No. 67; 1; Indels tive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 36; DB 3; Length 9; Pred. No. 4.1e+05; 4; Mismatches 0; Indels
                                                                                                                                               COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/802,981
FILING DATE: 20-FEB-1997
CLASSIPICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HUNGEY, TOM
                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Crew LLP
                                                                   Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 016865-000300US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
IELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 143:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 29933, Application US/09252991A ; Patent No. 6551795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64.3%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 55.6
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 9 amino acids
TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                         CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : ||::|||
33 VEVPVAVPC 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ::|:|:|
2 AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-252-991A-29933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-252-991A-29933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-802-981-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                          Sequence 43, Application US/08549008

Sequence 43, Application US/08549008

Patent No. 5714310N:

GENERAL INFORMATION:

APPLICANT: Romoriya, Akira

APPLICANT: Romoriya, Akira

TITLE OF INVENTION: Compositions for the Detection of

TITLE OF INVENTION: Protease in Biological Samples and Methods of Use Thereof

WUMBER OF SEQUENCES: 56

CORRESPONDENCE ADDRESS:

ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 143, Application US/08802981

Batent No. 6037137

GENERAL INFORMATION:
APPLICANT: Romoriya, Akira
APPLICANT: Packard, Beverly S.
TITLE OF INVENTION: Compositions for the Detection of Enzyme
TITLE OF INVENTION: Activity in Biological Samples and Methods of Use Thereof
NUMBER OF SEQUENCES: 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                      ö
                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                      ..
0
                  Score 36; DB 1; Length 9;
Pred. No. 4.1e+05;
4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 36; DB 1; Length 9;
Pred. No. 4.1e+05;
4; Mismatches 0; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/549,008
FILING DATE: 27-0CT-1995
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US/08/331,383
APPLICATION NUMBER: US/08/331,383
FILING DATE: 28-0CT-1994
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen Lauver
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 016865-000110US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: Townsend and Townsend and Crew LLP
Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 43:
                     64.3%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64.3%;
50.0%;
Query Match
Best Local Similarity 50.0
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 50.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: Two Embarcac
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SVPLSVPC 10
                                                                                                              SVPLSVPC 10
                                                                                                                                     ::|:|:|
2 AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AIPMSIPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
US-08-802-981-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-549-008-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH:
```

ö

ö

ઠે g

```
RESULT 13
US-09-252-991A-26663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-252-991A-26663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
Sequence 8157, Application US/09513999C
| Patent No. 6783961|
| GENERAL INFORMATION:
| APPLICANT: Duras Milne Edwards, J.B.
| APPLICANT: Duclert, A.
| APPLICANT: Duclert, A.
| APPLICANT: Duclert, A.
| APPLICANT: Glordano, J.Y.
| TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
| Patent No. 6783961|
| FILE REPERENCE: 59, US. REG
| CURRENT APPLICATION NUMBER: US/09/513,999C
| CURRENT PILING DATE: 1999-02-26
| PRIOR PILING DATE: 1999-02-26
| NUMBER OF SEQ ID NOS: 36681
| SOFTWARE: Patent. Pm
| SEC ID NO 8157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 36; DB 4; Length 121;
Pred. No. 88;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64.3%; Score 36; DB 4; Length 192; 50.0%; Pred. No. 1.4e+02; ive 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 5605, Application US/09621976

GRUERAL No. 6639063

GRUERAL INFORMATION:
APPLICANT: Jobert, S.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION:
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 96
OTHER INFORMATION: Xaa=Cys or Gly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Xaa=Gly or Val
US-09-513-999C-8157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 77.8%;
Matches 7; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |:|: : |||
CMSLSMKVPC 11
                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58 CTSVPLSPP 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: SIGNAL
; LOCATION: -25..-1
US-09-621-976-5605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: UNSURE
LOCATION: 113
 US-09-513-999C-8157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
US-09-621-976-5605
                                                                                                                                                                                                                                                                                                  SEQ ID NO 8157
LENGTH: 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 5605
LENGTH: 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

RESULT 12 US-09-252-991A-29740

```
Sequence 2663, Application US/09252991A
Sequence 2663, Application US/09252991A
Sequence 2663, Application US/09252991A
Sequence 2663, Application US/09252991A
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 26663
LENGTH: 510
Sequence 29740, Application US/09252991A
Patent No. 6551795
GENERAL INCORMATION:
AFPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: AERGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION NUMBER: US/09/252,991A
CURRENT APLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 29740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Giot, Loic
APPLICANT: Mansfield, Traci A.
APPLICANT: Mansfield, Traci A.
TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same FILE REPERBNCE: 15966-542
CURRENT APPLICATION NUMBER: US/09/538,092
CURRENT FILING DATE: 2000-03-29
PRIOR APPLICATION NUMBER: 60/127,352
PRIOR FILING DATE: 1999-04-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 36; DB 4; Length 341;
Pred. No. 2.6e+02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 510;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 36; DB 4; Length 510 Pred. No. 3.9e+02; 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-538-092-383
; Sequence 383, Application US/09538092
; Patent No. 6753314
; GENERAL INFRWATION:
                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-29740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64.3%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64.3%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 60.0.
Best Local Similarity
61.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       294 CISVSSTLPC 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  359 CIAVAAAIPC 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
5; Conserva
```

```
RESULT 15
US-09-252-991A-19384
; Sequence 19384, Application US/09252991A
; Sequence 19384, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICATION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; TITLE OF INVENTION: ASRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; CURRENT FILING DATE: 1999-02-18
; FRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR PILING DATE: 1998-02-18
; PRIOR FILING DATE: 1998-02-18
; PRIOR FILING DATE: 1998-07-27
; SEQ ID NO 19384
; LENGTH: 700
                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                         .
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                   Query Match 64.3%; Score 36; DB 4; Length 581; Best Local Similarity 50.0%; Pred. No. 4.5e+02; Matches 5; Conservative 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 64.3%; Score 36; DB 4; Length 700; Best Local Similarity 75.0%; Pred. No. 5.4e+02; Matches 6; Conservative 1; Mismatches 1; Indels
                                                                                                                                                  TYPE: PRT
OCGANISM: Saccharomyces cerevisiae
FEATURE:
NAME/KEY: misc_feature
JCCATION: (0) ... (0)
OTHER INFORMATION: Polypeptide Accession Number YHR032W
US-09-538-092-38
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR FILING DATE: 2000-02-01
NUMBER OF SEQ ID NOS: 1387
SOFTWARE: CuraPatSeqFormatter Version 0.9
SEQ ID NO 383
LENGTH: 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Search completed: April 1, 2005, 09:36:19 Job time : 23.1918 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-19384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:|:| |
564 CVSIPVSSGC 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : ||||||
46 AAPLSVPC 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

THIS PAGE BLAWK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 06:17:29 ; Search time 13.0685 Seconds (without alignments) 66.262 Million cell updates/sec

US-09-761-636A-14 52 Title: Perfect score:

1 CISVPLVPC 9 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Res

Description	hypothetical prote	cetyl	N-acetyl-gamma-glu	keratin A, type I	keratin, type I, h	phage-related endo	hypothetical prote	•	intrinsic factor-B	type IIS restricti	hypothetical prote	probable sensory t	nodulin-14 precurs	probable AraC-fami	conserved hypothet	tyrosine kinase -	protein K10B4.1 [i	multifunctional am	probable multi-dom	hypothetical prote		u		hypothetical prote		hypothetical prote	ogena	e CoA-trans	neural cell adhesi
ΩI	T25817	A81988	D81043	A61404	A46559	D82795	T00416	C84918	T08618	H64690	T19895	T50119	JQ1086	AF0936	A82728	S51668	D88013	SYHUQT	T37057	AC1877	JC7562	T13801	AI3609	T25627	T01390	T46915	383	54	JE0099
DB	10	0	~	0	N	~	N	N	N	7	N	7	~	~	~	~	~	-	7	7	~	7	~	0	~	~	Н	~	7
Length	297	347	347	416	416	154	577	1015	3623	287	407	1639	61	278	305	496	1210	1440	2240	397	551	1876	339	370	434	491	497	498	725
Query Match	75.0	75.0	75.0	75.0	75.0	73.1	73.1	73.1	73.1	71.2	71.2	69.2	67.3	67.3		67.3	67.3	67.3	67.3	65.4	65.4	65.4	63.5	63.5	63.5	63.5	63.5	63.5	63.5
Score	39	36	39	39	39	38	38	38	38	37	37	36	35	35	35	35	32	35	35	34	34	34	33	33	33	33	33	33	33
sult No.		8	М	4	ស	Q	7	æ	თ	10	11	12	13	14	15	16	17	18	19	50	21	22	23	24	25	56	27	28	59

probable cation tr	nypotnetical prote probable dehydroge	probable dehydroge	probable ribonucle	probable DNA-direc	prestalk protein p	structural polypro	cutl protein - fis	cutl protein - fis	lon protein - Esch	E5 protein - human	thrombospondin - b	probable inclusion	hypothetical prote	dual specificity p	
F70757	A65072 B91098	F85943	T41246	S26985	A26838	VHWV	A35694	T41455	A23101	WSWL39	A61594	D71541	T02683	A47196	
00	N 01	~	N	~	7	-	~	~	~	н	~	~	~	7	
771	926 956	926	957	1021	1046	1253	1827	1828	58	72	84	115	174	185	
63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	61.5	61.5	61.5	61.5	61.5	61.5	,
33	n (n	33	33	33	33	33	33	33	32	32	32	32	32	32	
30	31 32	33	34	35	36	37	38	39	40	41	42	43	44	45	

ALIGNMENTS

```
ö
                                                                                                                                  Gaps
                                                                                                                                   ö
                                                                                                                      Length 297;
                                                                                                                                 1; Indels
                                                                                                                     Score 39; DB 2;
Pred. No. 14;
2; Mismatches 1
                                                                                                                     75.0%;
                                                                                                                                   Conservative
                                                                                                                                                    169 CISLPIVTC 177
                                                                                                                                              6
                                                                                                                      Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                             1 CISVPLVPC
                                                                                             A,Gene: CESP:K12D9.3
A,Map position: 5
A,Introns: 165/3; 208/3
                                                                                                                                                         원
                                                                                                                                               ઠે
```

A;Gene: argC; NMA0676 C;Superfamily: N-acetyl-gamma-glutamyl-phosphate reductase C;Keywords: oxidoreductase

Gaps

; 0

Length 416; 2; Indels

```
Cypecies: Xylella fastidiosa
Cypateria Lastidiosa
Cypateria

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C,Accession: T00416
R;Rounsley, S.D.; Lin, X.; Ketchum, K.A.; Crosby, M.L.; Brandon, R.C.; Sykes, S.M.; Masor Bubmitted to the EMBL Data Library, October 1998
A;Description: Arabidopsis thaliana chromosome II BAC T30B22 genomic sequence.
A;Reference number: Z14149
   J. Invest. Dermatol. 91, 541-546, 1988
A;Title: Cloning and characterization of a mouse type I hair keratin cDNA.
A;Reference number: A46559; MUID:89054860; PMID:2461417
A;Accession: A46559
A;Status: preliminary
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-416 < BER.
A;Cross-references: UNIPROT:Q61765; GB:M27734; NID:9198585; PIDN:AAA39372.1; PID:9198586
C;Superfamily: cytoskeletal keratin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       phage-related endolysin XF0513 [imported] - Xylella fastidiosa (strain 9a5c)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical protein T30B22.1 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 01-Feb-1999 #sequence_revision 01-Feb-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 38; DB 2; Length 154;
Pred. No. 11;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Gene: XF0513
C;Superfamily: phage T4 lysozyme; phage T4 lysozyme homology
                                                                                                                                                                                                                                                                                                                                                    .;
                                                                                                                                                                                                                                                                                                                                                 Score 39; DB;
Pred. No. 19;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                    75.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 73.1%;
Best Local Similarity 75.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    385 CVSNPCVPC 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CISVPMLP 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Contents: annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T00416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             업
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                             RESULT 3
D91043
N-acetyl-gamma-glutamyl-phosphate reductase NMB1787 [imported] - Neisseria meningitidis
C;Species: Neisseria meningitidis
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
C;Accession: D81043
R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, J.R
Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.;
ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M.
A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Ve
A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Keratin A, type I - mouse (5)Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 03-May-1996
C;Accession: A61404
R;Kaytes, P.S.; McNab, A.R.; Rea, T.J.; Groppi, V.; Kawabe, T.T.; Buhl, A.E.; Bertolino, J. Invest. Dermatol. 97, 835-842, 1991
A;Title: Hair-specific keratins: characterization and expression of a mouse type I kerat A;Reference number: A61404; MUID:92013235; PMID:17717610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:09JY18; GB:AE002528; GB:AE002098; NID:G7227034; PIDN:AAF4212
A;Experimental source: serogroup B, strain MC58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      keratin, type I, hair (clone MHKA-1) - mouse
C;Species: Mus musculus (house mouse)
C;Date: 03-mar-1994 #sequence_revision 03-mar-1994 #text_change 09-Jul-2004
C;Dates 03-mar-1994 #sequence_revision 03-mar-1994 #text_change 09-Jul-2004
C;Accession: A46559
E;Bertolino, A.P.; Checkla, D.M.; Notterman, R.; Sklaver, I.; Schiff, T.A.; Freedberg,
                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
      Length 347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 39; DB 2; Length 347;
Pred. No. 16;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; not compared with conceptual translation A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 416;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Genetics:
A;Gene: NMB1787
C;Superfamily: N-acetyl-gamma-glutamyl-phosphate reductase
Score 39; DB 2;
Pred. No. 16;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 39; DB 2
Pred. No. 19;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Residues: 1-416 <KAY>
C,Superfamily: cytoskeletal keratin
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 66.7%;
                           Local Similarity 75.0
ses 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CVSNPCVPC 393
                                                                                                                                                                                                      156 ČVŠLPĽVP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |:|:|||
156 CVSLPLVP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLVPC 9
                                                                                                                                       æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-347 <TET>
                                                                                                                                    1 CISVPLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: D81043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             385
Query Match
Best Local
                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
```

ò

Gaps

ó

Mon Apr

ઠે ద

```
Cipacesion: H64690

RiTomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R.D.; Petrson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKennes, Son, J.D.; Kelley, J.M.; Cotton, M.D.; Wedman, J.M.; Fujii, C.; Bowman, C.; Watthey, L. Nature 388, 539-547, 1997

A;Authors: Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, C.A. A;Authors: Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, C.A. A;Reference number: A64520; MulD:97394467; PMID:9252185

A;Reference number: A64520; MulD:97394467; PMID:9252185

A;Reference number: DNA

A;Residues: 1-287 <TOM>
A;Residues: 1-287 <TOM>
A;Cross-references: UNIPROT:025921; GB:AE000637; GB:AE000511; NID:g2314536; PIDN:AAD08412; A;Start codon: TTG

C;Superfamily: type II site-specific DNA-methyltransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Appointerical protein C41G7.4 - Caenorhabditis elegans
C.Species: Caenorhabditis elegans
C.Species: Caenorhabditis elegans
C.Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C.Accession: T19895
A.Steward, C.
submitted to the EMBL Data Library, October 1996
A.Reference number: Z19192
A.Accession: T19895
A.Accession: T19895
A.Status: preliminary; translated from GB/EMBL/DDBJ
A.Rocasion: T19895
A.Residues: 1-407 - WILL>
A.Residues: 1-407 - WILL>
A.Residues: Lype: DNA
A.Residues: UNDROT: Q93368; EMBL: Z81048; PIDN: CAB02841.1; GSPDB: GN00019; CESP: C41
A.Experimental source: clone C41G7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               probable sensory transduction histidine kinase [imported] - fission yeast (Schizosacchard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Helicobacter pylori
C;Date: 09-Aug-1997 #sequence_revision 09-Aug-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                         type IIS restriction enzyme M2 protein - Helicobacter pylori (strain 26695)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                            73.1%; Score 38; DB 2; Length 3623; 66.7%; Pred. No. 2.2e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71.2%; Score 37; DB 2; Length 407; 66.7%; Pred. No. 42; ive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2; Length 287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             h 71.2%; Score 37; DB Similarity 75.0%; Pred. No. 31; 6; Conservative 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Map position: 1
A;Introns: 27/2; 107/3; 151/3; 333/3; 373/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Conservative
                                                                                                6; Conservative
                                                                                                                                                                                                                   313 ČSQAPĽVPC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     113 CSSNPIVPC 121
                                                                                                                                                         1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ||:|||:|
86 CINVPLMP 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 6; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLVP 8
                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Gene: CESP:C41G7.4
                                                                                            Matches
                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
                                                                                                                                                            ઠે
                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Molecule type: DNA
A;Residues: 1-1015 <STO>
A;Crose-references: UNIPROT:022243; GB:AE002093; NID:g3738282; PIDN:AACG3624.1; GSPDB:GN
C;Genetics:
A;Gene: At2g47680
A;Map position: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Species: Rattus norvegicus (Norvey tat)
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
C;Accession: T08618
R;Moestrup, S.K.; Kozyraki, R.; Kristiansen, M.; Kaysen, J.H.; Rasmussen, H.H.; Brault, J. Biol. Chem. 273, 5235-5242, 1998
A,Title: The intrinsic factor-vitamin B12 receptor and target of teratogenic antibodies A,Reference number: Z16459; MUID:98148073; PMID:9478979
A,Accession: T08618
A,Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cross-references: UNIPROT:070244; EMBL:AF022247; NID:g3834379; PIDN:AAC71661.1; PID:g3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Superfamily: intrinsic factor-B12 receptor cubilin; EGF homology
C;Keywords: egg yolk; endocytosis; glycoprotein; intestine; kidney; peripheral membrane.
C;L-20/Domain: signal sequence #status predicted <SIG>
F;1-20/Domain: signal sequence #status predicted <SIG>
F;1-3623/Product: intrinsic factor-B12 receptor CUBILIN #status predicted <MAT>
F;133-164/Domain: EGF homology <EGF>
F;3436-467/Domain: EGF homology <EGF>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Riin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L. Buss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J. Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A;Reference number: A84420; MUID:20083487; PMID:10617197
                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                      A; Molecule type: DNA
A; Residues: 1-577 < ROU>
A; Cross-recences: UNIPROT: 022243; EMBL: AC002535; NID: G2529657; PID: G2529658
A; Experimental source: cultivar Columbia
C; Genetics:
A; Map position: 2
A; Introns: 87/3; 126/3; 175/1; 264/3; 329/3; 507/3
C; Superfamily: Arabidopsis thaliana hypothetical protein T30B22.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C;Accession: C84918
                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       probable ATP-dependent RNA helicase A [imported] - Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 38; DB 2; Length 1015;
Pred. No. 66;
                                                                                                                                                                                                                                                                                                                                         73.1%; Score 38; DB 2; Length 577; 75.0%; Pred. No. 39;
                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              intrinsic factor-B12 receptor CUBILIN precursor - rat
                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Mismatches
                            A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73.1%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                      6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 73.1
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238 CVSVPFVP 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 676 ČVŠVPFVP 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 1-3623 <MOE>
                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A, Accession: C84918
A, Status: preliminary
A; Accession: T00416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene: CUBILIN
                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                      Matches
```

ò 윱

Species: Schizosaccharomyces pombe

```
Conserved hypothetical protein XF1068 [imported] - Xylella fastidiosa (strain 9a5c)
C;Species: Xylella fastidiosa
C;Dacessian: A82728
R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequence Nature 406, 151-157, 200
A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Reference number: A82515; MUID:20365717; PMID:10910347
A;Note: for a complete list of authors see reference number A59328 below
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: University of the control of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                        A;Cross-references: GB:AL513382; PIDN:CAD09512.1; PID:g16504629; GSPDB:GN00176 C;Gentelics: A;Gene: STY3756 C;Superfamily: hypothetical protein b2382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       67.3%; Score 35; DB 2; Length 305; 57.1%; Pred. No. 74; ive 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                           Length 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                    Score 35; DB 2
Pred. No. 68;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1, 2005, 09:33:30
                                                                                                                                                                                                                                                                                                                                                                                                    67.3%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                      Query Match 67.3
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 57.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |: ||:||
56 ITAPLIPC 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Accession: A82728
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-305 <SIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               completed: April
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 SVPLVPC 9
<PAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIPIIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Contents: annotation
A; Residues: 1-278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Gene: XF1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search cor
Job time
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Pisum sativum (garden pea)
C;Date: 23-Nov-1991 #sequence_revision 23-Nov-1991 #text_change 09-Jul-2004
C;Accession: JQ1086
R;Scheres, B: van Engelen, F.; van der Knaap, E.; van de Wiel, C.; van Kammen, A.; Biss
Plant Cell 2, 687-700, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Title: Sequential induction of nodulin gene expression in the developing pea nodule. A,Reference number: J01084; MUD: 93005665; PMID: 2152123
A,Accession: J01086
A,Accession: J01086
A,Molecule type: mRNA
A,Residues: 1-61 <SCH>
A,Residues: 1-61 <SCH>
A,Residues: 1-62 + SCH>
A,Residues: 1-63 + SCH>
A,Residues: 1-64 +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probable AraC-family transcription regulator STY3756 [imported] - Salmonella enterica su probable AraC-family transcription regulator STY3756 [imported] - Salmonella enterica subsp. enterica serovar Typhi A,Note: this species has also been called Salmonella typhi C;Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 18-Nov-2002 C;Accession: AF0936 R;Parkhill, J; Dougan, G; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J; Churcher, th, T.; Connerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar, N. S.; Moulle, S.; O'Gaoza, P. Nature 413, 848-852, 2001 A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A;Accession: AB0502; MUID:21534947; PMID:11677608 A;Accession: AF0936 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Molecule type: DNA,
**Residues: 1-1639 <SEE>
**Residues: 1-1639 <SEE
**
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                          Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change 09-Jul-2004 Accession: T50119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                  RiSeeger, K.; Harris, D.; Wood, V.; Rajandream, M.A.; Barrell, B.G. submitted to the EMBL Data Library, February 2000
A;Reference number: 225039
A;Accession: TS0119
```

Length 61;

7

Score 35; DB Pred. No. 16; 2; Mismatches

67.38;

5; Conservative

Matches

Local Similarity

::[|||| NIPLVPC 27

3 SVPLVPC 9

ò 엄

A;Experimental source: root nodule C;Comment: The gene encoding this protein is expressed C;Genetics: A;Gene: ENOD14 F;1-20/Domain: signal sequence #status predicted <SIG>F;21-61/Product: nodulin 14 #status predicted <MAT>

0; Indels

Length 1639;

Score 36; DB 2; I Pred. No. 2.4e+02;

69.2%;

Best Local Similarity 85.7 Matches 6; Conservative

A; Gene: SPDB:SPAC1834.08

A; Map position: 1 A; Introns: 23/3 Query Match ||||:|| SVPLLPC 563

3 SVPLVPC 9

ଚ В

1; Mismatches

nodulin-14 precursor - garden pea (fragment)

A; Status: preliminary; translated from GB/EMBL/DDBJ

0; Indels

Н

Mon Apr

```
Q7SGZ4;
01-MAR-2004 (TrEMBLrel. 26, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CASVPLEPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                       Name=amoD;
                                                                                                                                                                                                                                                                                                                                                                                                        Reductase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q7SGZ4
                                                                                                                                                                                                                                                                                                                      053028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
Q7SGZ4
                                                                                                                                                                                                                                                                                       RESULT 1
Q53028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HAU
HAU
                                                                                                                                                                                                                                                                                                                          SOW KWA WALLE DAY ON THE CONTROL OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neisseria m
neisseria m
caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            borrelia bu
homo sapien
xylella fas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lotus japon
anopheles g
avian adeno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chlamydophi
drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            homo sapien
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mus musculu
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ashbya goss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oryza sativ
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q53028 rhodococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            helicobacte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fusobacteri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         streptococc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          streptococc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                           April 1, 2005, 03:33:32; Search time 55:1096 Seconds (without alignments) 83.628 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09jvu6 r
09jy18 r
09jy18 r
06176 r
09ziy6 r
09pri3 r
030782 r
030782 r
030782 r
030782 r
030782 r
030784 r
03084 r
03084 r
03084 r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0868u5
025921
08c244
09qy31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q7x9c0
Q7pra2
Q96736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q6en50
Q8bu71
Q8r673
Q99y31
Q8nzf5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q93368
Q756m1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q7sgz4
Q9ma88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q6mvm6
                                                                                                                                                                                                                                                                                                       1612378
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                        1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q53028
Q7SGZ4
Q9MA88
G6MWB6
ARGC_NEIMA
ARGC_NEIMB
P91378
X1H1_MOUSE
Q9ZIY6
                                                               - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                    Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O9PFZ3
O30782
O9VN94
O966C5
O22243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          O70244
Q8N7H7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q86SU5
Q25921
Q8C244
Q9QY31
Q93368
Q756M1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7X9C0
Q7PRA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q96736
Q6EN50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q99Y31
Q8NZF5
                                                                                                                                                                                                                                        Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28R673
                                                                                                                                                                                                                                                                                                                                                                                                                                                  UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                       US-09-761-636A-14
52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length DB
                                                                                                                                                                                          1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
                                                               OM protein
                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š.
```

```
ö
                       oryza sativ
xylella fas
                                                                                                                                                                                                     nicotiana t
dictyosteli
                                                                                                                                                                                                                                                 schizosacch
                                                                                                                                                                                                                                                                                                  pisum sativ
human papil
                                                                      mus musculu
                                                                                                     dictyosteli
                                                                                                                          homo sapien
                                                                                                                                                      methanopyru
                                                                                                                                                                           homo sapien
                                                                                                                                                                                                                                                                              plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAINS-276;
A Saeki H., Furuhashi K.;
Cloning and characterization of a Nocardia corallina B-276 gene
cluster encoding alkene momnoxygenase.";
"Cloning and characterization of a Nocardia corallina B-276 gene
cluster encoding alkene momnoxygenase.";

J. Ferment. Bioeng. 78:339-406(1994).

RMSD: D3486; 1070.

RGO: GO:0006489; F:electron transporter activity; IEA.

RO: GO:0006489; F:electron transporter activity; IEA.

RO: GO:0006489; F:electron transporter activity; IEA.

RO: GO:0006418; P:electron transport. IEA.

RICEPTO: IPRO0833; FAD_Infalling.

InterPro: IPRO01709; FAD_Infalling.

InterPro: IPRO01709; FAD_Infalling.

InterPro: IPRO01709; FAD_Infalling.

InterPro: IPRO0171; Pelactron

Refam; PRO0171; Pelactron

REfam; PRO0175; NAD_Infalling.

REFAM; PRO0175; NAD_Infalling.

REFAM; PRO0175; NAD_Infalling.

REFAM; PRO0171; PENCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                      Q6zs91 | Q9m7a8 | Q86ke8 | Q9p7q7 | Q9p7q7 | P26415 | P50774 | P50
                                                                      Q8bn56
015716
Q8n787
Q8tvz0
                         Q6yx86
Q87£37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria, Actinobacteria, Actinobacteridae, Actinomycetales, Corymebacterinee, Gordoniaceae, Gordonia.
  27cms5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00197; 2FE2S FERREDOXIN; 1.
2Fe-2S; Iron; Iron-sulfur; Metal-binding.
SEQUENCE 342 AA; 37282 MW; 4651F38D116A8049 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 41; DB 2
Pred. No. 27;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               342 AA
                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                NO14 PEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                    Q6YXS6
Q87F37
Q8BN56
Q15716
Q8TVZ0
Q6ZS91
Q96ZS91
Q96ZS91
Q96ZS91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78.8%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q53028;
01-NOV-1996 (TrEMBLrel. 01,
01-NOV-1996 (TrEMBLrel. 01,
01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
  186
225
309
309
442
583
650
662
945
11348
1639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rhodococcus corallinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVPLVPC 9
```

N

```
1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   meningitidis Z2491
                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=5141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARGC NEIMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                               обмумб
Обмумб ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
ARGC_NEIMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                            RESULT 4
Q6MVM6
                                                                                                                                                                                                                           ACCOCCOOR REPRESENTATION OF THE PROPERTY OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                           Galagan J.E., Calvo S.E., Borkovich K.A., Selker E.U., Read N.D.,
A Jaffe D., Fitzhugh W., Ma L.-J., Smirnov S., Purcell S., Rehman B.,
Elkins T., Engels R., Wang S., Nielsen C.B., Butler J., Endrizzi M.,
Qui D., Lanakiev P., Pedersen D., Melson M., Washburne M.,
A Chinsey G., Jedersen D., Melson M., Schler A., Schulte U.,
A Kothe G., Jeder G., Mewes W., Staben C., Marcotte E., Greenberg D.,
A Roy A., Foley K., Naylor J., Thomann N., Barrett R., Gnerre S.,
A Kamal M., Kamwysselis M., Mauceli E., Bielke C., Rudd S., Frishman D.,
A Krystofova S., Rasmussen C., Merzenberg R.L., Perkins D.D., Kroken S.,
Cogoni C., Macino G., Carcheside D., Li W., Perkins D.D., Kroken S.,
A Cogoni C., Macino G., Carcheside D., Li W., Perkins D.D., Kroken S.,
A Varden O., Plamann M., Seiler S., Dunlap J., Radford A., Aramayo R.,
A Varden O., Plamann M., Seiler S., Dunlap J., Radford A., Aramayo R.,
Paulsen I., Sachs M.S., Lander E.S., Nusbaum C., Birren B.,
T'He Genome Sequence of the Filamentous Fungus Neurospora crassa.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ö.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arabidopsis thaliana (Mouse-ear cress).

Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids, eurosids II; Brassicales, Brassicaceae, Arabidopsis.

NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lin X., Kaul S., Town C.D., Benito M.-I., Creasy T.H., Haas B.,
Lin X., Kaul S., Town C.D., Benito M.-I., Creasy T.H., Haas B.,
Ronning C.M., Koo H., Fuji C.Y., Utcrback T.R., Barnstead M.B.,
Bowman C.L., White O., Nierman W.C., Fraser C.M.,
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
BMBL, AC009177, ARE27037.1; -.
GOO GO.-0005509; F.calcium ion binding; IEA.
RICEPPRO, IPRO10963; EF-hand.
RICEPPRO, IPRO10963; EF-hand_like.
RICEPPRO, EPO00056; efhand, 2.
REMIL, PS00018; EF HAND, UNKNOWN 2.
REQUENCE 648 AA, 73066 MW, D22FD23B724DBB7B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                          Neurospora crassa.
Bukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
Sordariomycetidae; Sordariales; Sordariaceae; Neurospora.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76.9%; Score 40; DB 2; Length 648; 66.7%; Pred. No. 77; 3; Indels .ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          preliminary data.
EMBL; AABX01000006; EAA36172.1; -.
SEQUENCE 594 AA; 67168 MW; 17B631E6D4695FAB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update) 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    76.9%; Score 40; DB 2;
55.6%; Pred. No. 71;
tive 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             648 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | :|:|||
CTGIPIVPC 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLVPC 9
                                               Predicted protein. Name=NCU03022.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
ses 6; Conserv
                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nature 0:0-0(2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T12H1.28 protein.
                                                                                                                                                                      NCBI_TaxID=5141;
                                                                                                                                                                                                                                                 STRAIN=OR74A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9MA88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9MA88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
ઠે
```

```
STRAIN=Z2491 / Serogroup A / Serotype 4A;
MEDLINE=2022556; PubMed=10761919; DOI=10.1038/35006655;
Parkhill J., Achtman M., James K.D., Bentley S.D., Churcher C.M.,
Klee S.R., Morelli G., Basham D., Brown D., Chillingworth T.,
Davies R.M., Davis P., Devlin K., Feltwell T., Hamlin N., Holroyd S.,
Jagels K., Leather S., Moule S., Mungall K.L., Quail M.A.,
Rajandream M.A., Rutherford K.M., Simmonds M., Skelton J.,
Whitchead S., Spratt B.G., Barrell B.G.;
"Complete DNA sequence of a serogroup A strain of Neisseria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nature 404:502-506(2000).
-!- CARALYTIC ACTIVITY: N-acetyl-L-glutamate 5-semialdehyde + NADP(+)
+ phosphate = N-acetyl-5-glutamyl phosphate + NADFH.
-!- PATHWAY: Arginine biosynthesis; third step.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Schulte U., Aign V., Hoheisel J., Brandt P., Fartmann B., Holland R., Nyakatura G., Mewes H.W., Mannhaupt G.;
Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
N-acetyl-gamma-glutamyl-phosphate reductase (EC 1.2.1.38) (AGPR) (N-acetyl-glutamate semialdehyde dehydrogenase).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota, Fungi, Ascomycota, Pezizomycotina, Sordariomycetes,
Sordariomycetidae, Sordariales, Sordariaceae, Neurospora.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76.9%; Score 40; DB 2; Length 772;
55.6%; Pred. No. 92;
cive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        German Neurospora genome project;
Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; BX842626; CAE76271.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11 protein.
772 AA; 87442 MW; 76C8CDF43F94840B CRC64;
                                                                                                                                                                                                                                  05-JUL-2004 (TYEMBLrel. 27, Created)
05-JUL-2004 (TYEMBLrel. 27, Last sequence update)
05-JUL-2004 (TYEMBLrel. 27, Last annotation update)
Hypothetical protein B18P24.130.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        347 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=argC; OrderedLocusNames=NMA0676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Neisseria meningitidis (serogroup A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR01810; F-box.
Pfam; PF00646; F-box; 1.
Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 55.6
les 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neisseriaceae; Neisseria.
NCBI_TaxID=65699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                PRELIMINARY;
227 CFDTPLVPC 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      454 CTGIPIVPC 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                         Neurospora crassa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
```

.. 0

```
between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                   This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Nematoda, Chromadorea, Rhabditida, Rhabditoidea,
Rhabditidae, Peloderinae, Caenorhabditis.
NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                          ProDom; PD003765; AGPR_act_site; 1.
TIGRRAMs; TIGR01850; argC; 1.
PROSITE; PS01224; ARGC; FALSE NEC.
Arginine biosynthesis; Complete proteome; NADP; Oxidoreductase.
Arginine 152 152 By similarity.
SEQÜENCE 347 AA; 37213 MW; A927CS70DE19ECD1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WormBase Consortium;
"Genome sequence of the nematode C. elegans: a platform for
investigating biology. The C. elegans Sequencing Consortium.";
Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75.0%; Score 39; DB 1; Length 347; 75.0%; Pred. No. 64; tive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wilson R.;
Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
[5]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "The sequence of C. elegans cosmid K12D9."; Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1997 (TrEMBLrel. 03, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Serpentine receptor, class w protein 121.
Name=srw-121; ORFNames=K12D9.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362 AA
                                                                                                                                                                                                   TIGR, NMB1787;
HAMAP; MF 00150;
Interpro; IPR000706; AGPR act site.
Interpro; IPR001137; NAGSA deh.
Interpro; IPR001137; Semialdh dh.
Pfam; PF01118; Semialdhyde dh; 1.
Pfam; PF02774; Semialdhyde dh; 1.
PIRSF; PIRSF000150; NAGSA_Geh; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                  EMBL; AE002528; AAF42126.1; -. PIR; D81043; D81043.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |:|:||||
156 CVSLPLVP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Waterston R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Graves T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P91378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
P91378
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=20175755; PubMed=10710307; DOI=10.1126/science.287.5459.1809; MEDLINE=20175755; PubMed=10710307; DOI=10.1126/science.287.5459.1809; Tettelin H., Saunders N.J., Heidelberg J.F., Jeffries A.C., Nelson K.E., Eisen J.A., Ketchum K.A., Hood D.W., Peden J.F., Dodson R.J., Nelson W.C., Gwinn M.L., DeBoy R.T., Peterson J.D., Hickey E.K., Haft D.H., Salzberg S.L., White O., Fleischmann R.D., Dougherty B.A., Mason T.W., Ciecko A., Parksey D.S., Blair B., Cittone H., Clark E.B., Cotton M.D., Utterback T.R., Khouri H.M., Qin H., Vamathevan J.J., Gill J., Scarlato V., Masignani V., Pizza M., Venter J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Complete genome sequence of Neisseria meningitidis serogroup B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -i - CATALYTIC ACTIVITY: N-acetyl-L-glutamate 5-semialdehyde + NADP(+) + phosphate = N-acetyl-5-glutamyl phosphate + NADPH.
-i - PATHWAY. Azginine biosynthesis; third step.
-i - SUBCELLULAR LOCATION: Cytoplasmic (Probable).
-i - SIMILARITY: Belongs to the NAGSA dehydrogenase family. Subfamily
-!- SUBCELLULAR LOCATION: Cytoplasmic (Probable).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
N-acctyl-gamma-glutamyl-phosphate reductase (EC 1.2.1.38) (AGPR) (N-acctyl-gamma-glutamyl-phosphate reductase)
Name=argC; OrderedLocusNames=NMB1787;
Neisseria meningitidis (serogroup B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                               TIGRPAMS; TIGRO1850; argC; 1.
PROSITE; PS01224; ARGC; FALSE NEG.
Arginine biosynthesis; Complete proteome; NADP; Oxidoreductase.
Arginine biosynthesis Complete Broteome; NADP; Oxidoreductase.
By similarity.
SEQÜENCE 347 AA; 37227 MW; E11E8A19A22B9246 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75.0%; Score 39; DB 1; Length 347; 75.0%; Pred. No. 64; 0; Indels ative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         347 AA
                                                                                                                                                                                                                     EMBL, AL162753; CAB83963.1; -. PTR; A01988; A81988.
HAMAP, MF 00150; -; I. Therero: IPR001050; -; ACPR act site. InterPro: IPR001076; ACPR act site. InterPro: IPR001137; NAGSĀ deh. InterPro: IPR000554; Semialdh dh. Pfam; PF02774; Semialdhyde dh; I. Pfam; PF02774; Semialdhyde dh; I. PIRSF; PIRSF000150; NAGSĀ deh; I. PRODOM; PD003765; AGPR act_site; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Science 287:1809-1815(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Neisseriaceae; Neisseria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:|:||||
156 CVSLPLVP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARGC NEIMB Q9JY18;
g
```

Gaps

ö

```
Coiled coil; Intermediate filament; Keratin.
                                                364
364
57
103
220
305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-2003
                                                                                                                                                                                                                     SEQUENCE
                                                                                      DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9ZIY6;
                            DOMAIN
                                                                                                                                                                               DOMAIN
                                                                  DOMAIN
                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9XIZ60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q8N719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
Q8N7I9
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
Q9ZIY6
        8
                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                              WormBase; Wigene00005868; K12D9.3.
WormBase; K12D9.3; CE34343.
GO; GO:0016021; C:integra at onembrane; IEA.
GO; GO:0004872; F:receptor activity; IEA.
GO; GO:0001188; F:rhodopsin-like receptor activity; IEA.
GO; GO:0001188; F:rhodopsin-like receptor protein signalin. .; IEA.
InterPro; IPR000276; GPCR Rhodopsn.
PROSITE: PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PERZING 1.00.

STRAIN-C57BL/64; TISSUE-Hair;

MEDLINE-89054860; PubMed=2461417;

MEDLINE-89054860; PubMed=2461417;

MEDLINE-89054860; PubMed=2461417;

MEDLINE-89054860; PubMed=2461417;

Freedberg I.M., Didona G.J.,

"Cloning and characterization of a mouse type I hair keratin cDNA.";

"Cloning and characterization of a mouse type I hair keratin cDNA.";

"I semicolar there are two types of hair/microfibrillar keratin,

I (acidic) and II (neutral to basic).

-I similarity: Belongs to the intermediate filament family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-2004 (Rel. 36, Last Sequence update)
Keratin, type I cuticular HAI (Hair keratin, type I HAI) (HKA-1).
Mus musculus (Mouse).
Bukarora.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 39; DB 2; Length 362;
Pred. No. 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
                                          Wilson R.;
Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                WormBase Consortium;
Submitted (SEP-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                  362 AA; 41292 MW; F25CFD3B0E1D9435 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    416 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001664; IF.
InterPro; IPR002957; Keratin_I.
Pfam; PF00038; Filament; 1.
PRINTS; PR01248; TYPELKERATIN.
PROSITE; PS00226; IF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75.0%;
                                                                                                                                                                                        EMBL; U80030; AAG24161.2; -. PIR; T25817; T25817.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; M27734; AAA39372.1; -. PIR; A46559. HSSP; PO8670; 1GK7. MSD; MGI:1309993; Krt1-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233 CÍSLPIVTC 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                      STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                    [6]
SEQUENCE FROM N.A.
                                                                                                                                 STRAIN=Bristol N2;
  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KHII MOUSE
AC 061765;
DT 15-JUL-1998
DT 15-JUL-1998
DT 05-JUL-2004
DE Keratin, type
GN Name=Krthal;
OS Name=Krthal;
OS Name=I TaxID=11
RN (1)
RP SEQUENCE FROM
NO NOBI TAXID=11
RN SEQUENCE FROM
CC TAXID=10 A.1
RN SEQUENCE FROM
CC -1- SIMILARIA
CC
                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Brain;
Nishi T., Ota T., Nakagawa S., Senoh A., Mizuguchi H., Inagaki H.,
Nishi T., Ota T., Nakagawa K., Mizuno S., Morinaga M., Kawamura M.,
Suzuki Y., Hata H., Nakagawa K., Mizuno S., Morinaga M., Kawamura M.,
Sugiyama T., Iria H., Otauki T., Sato H., Nishikawa T., Sugiyama A.,
Kawakami B., Nagai K., Isogai T., Sugano S.;
Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, AK088358; BACO52911, -
SEQUENCE 134 AA; 13911 MW; 9605A9F9912C2802 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Borrelia burgdorferi (Lyme disease spirochete).
Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
NCBI_TaxID=139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                  Score 39; DB 1; Length 416;
Pred. No. 76;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 38; DB 2; Length 80;
Pred. No. 23;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Feng S., Chen G., Barthold S.;
Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AR005056; AAD01230.1; -.
Hypothetical protein:
SEQUENCE 80 AA; 9171 MW; C61A1E359DEDBEA3 CRC64;
                                                                                                                                                           Stutter.
9C3759CF4E3A3EF3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TrEMBLrel. 10, Last sequence update) (TrEMBLrel. 25, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                               80 AA.
                                                                                                                 Linker 12.
Coil 2.
                                                                         Linker 1.
Coil 1B.
                                                        Coil 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1999 (TrEMBLrel. 10, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8N719;
01-0CT-2002 (TrEMBLrel. 22, Created)
01-0CT-2002 (TrEMBLrel. 22, Last seq
01-0CT-2002 (TrEMBLrel. 22, Last ann
Hypothetical protein FL725492.
Homo sapiens (Human).
                                     Tail
                                                                                                                                                                            47112 MW;
                                                                                                                                                                                                                    75.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73.1%;
87.5%;
                                                                                                                                                                                             Query Match
Best Local Similarity 66.77,
-hes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
Best Local Similarity 87,5
اتمار 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
56
416
416
102
203
203
363
                                                                                                                                                                                                                                                                                                                                        385 CVSNPCVPC 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical protein.
                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CISVPLYP 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLVP 8
                                                                                                                                                                            416 AA;
                                                                                                                                                                                                                                                                                                  1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=N40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
```

Gaps

ö

Indels

.; 0

75.0%; Pred. No. 44; iive 2; Mismatches

Conservative

```
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                 RESULT 12
                                                                                                                                                                                    030782
                                                                         ò
                                                                                                       g
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RA MEDILINE=20365717; PubMed=10910347; DOL=10. 1038/35018003;

RA Alvarenga R.J. Reinach F.C., Araya J.E., Baia G.S., Baptista C.S.,
RA Barros M.H., Bonacacorsi E.D., Bordin S., Bove J.M., Briones M.R.S.,
Bueno M.R.P., Camargo A.A., Camargo L.E.A., Cararo D.M., Carrar B.A.
Colauto N.B., Colombo C., Costa P.P., Costa M.C.R., Costa-Neto C.M.,
RA Colauto N.B., Fistofeani M., Dias-Neto E. Docena C., Ell-Dorry H.,
RA Colauto N.B., Faraca S.C., Franco M.C., Frohme M., Furlan L.R.,
Coutinho L.L., Cristofeani M., Dias-Neto E., Docena C., Ell-Dorry H.,
RA Fraga J.S., Franca S.C., Franco M.C., Frohme M., Furlan L.R.,
RA Garnier M., Goldman M.H.S., Gomes S.L., Gruber A.,
RA Ho P.L., Hoheisel J.D., Junqueira M.L., Kemper E.L., Kitajima J.P.,
R. Krieger J.E., Kuramae E.E., Laggret F., Lambais M.R., Leite L.C.C.,
R. Lemos E.G.M., Lemos M.V.F., Lopes C.R., Machado J.A.,
RA Marques M.V., Martins E.A.L., Martins E.M.F., Matsukuma A.Y.,
RA Marques M.V., Martins E.A.L., Martins E.M.F., Matsukuma A.Y.,
RA Moon D.H., Nagai M.A., Nascimento A.L.T.O., Noteiro-Vitorello C.B.,
A Nhani A. Jr., Nobrega F.G., Nuncs L.R., Oliveira M.A.,
RA Peixoto B.R., Perrenzi G.A.G., Perreira G.A.G., Santelli R.V., Sawasaki H.B.,
A da Silveira D.F., Silvestri M.L.Z., Siqueira W.J., de Rosa A.J.M.,
RA da Silveira J.F., Silvestri M.F., Truffic D., Tsai S.N., Tsuhada M.A., Vatlovstri M.Y., de Souza A.B.,
RA da Silveira J.F., Silvestri M.F., Truffic D., Tsai S.N., Tsuhada M.A., Neidanis J., Setubal J.C.;
Rado M.A., Zatz M., Meidanis J., Setubal J.C.;
Rado M.A., Zatz M., Meidanis J., Setubal J.C.;
Rature 406:151-158(2000).
C. -I. CATALYTIC ACTIVITY: Hydrolysis of the 1,4-beta-linkages between Neton Activity of the propriet of the plant pathogen K.J. Betta-linkages between Neton Activity Person, Werenor M. Partoro M. Partorolymers of the propriet of later of later of laterory activity of the reconstruction of laterory and laterory of laterory and laterory of laterory activity of laterory of laterory activity of laterory activity of laterory of laterory activi
                                                        ö
                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G0:0016998; F:hydrolase activity, acting on glycosyl bonds; IEA.
G0:0003796; F:lysozyme activity; IEA.
G0:0005975; P:carbohydrate metabolism; IEA.
G0:001698; P:cell wall catabolism; IEA.
G0:00189835; P:cytolysis; IEA.
G0:0042742; P:defense response to bacteria; IEA.
G0:009253; P:peptidoglycan catabolism; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lecubal J.C., resubako.

Lecubal J.C., resubako.

Lecubal J.C., vettore A.

Lectyl-D-glucosamine and N-acetylmuramic acid in peptidogly betteropolymers of the prokaryotes cell walls.

CC -!- SIMILARITY: Belongs to the glycosyl hydrolase 24 family.

DR EMBL, ABR03900, ABR8323.1; -.

DR GO; GO:0016798; F:hydrolase activity, acting ~

GO; GO:0016798; F:hydrolase activity, recting ~

RG; GO:0001989; P:carbohydraf*

DR GO; GO:001989; P:carbohydraf*

NR GO; GO:001989; P:cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Complete proteome; Glycosidase; Hydrolase.
                                                                                                                                                                                                                                                                                                                                                                Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
                                                          ..
0
                Score 38; DB 2; Length 134;
Pred. No. 38;
                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=20365717; PubMed=10910347; DOI=10.1038/35018003;
                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro, IPR002196; Glyco hydro 24.
Pfam; PF00959; Phage lysozyme; 1.
Bacteriolytic enzyme; Complete protec
                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16793 MW;
                  73.1%;
77.8%;
                                                                                                                                                                                                                                                   01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2000 (TrEMBLrel. 15, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                               Xanthomonadaceae; Xylella.
                                                                                                                                                                                                                                                                                                                              OrderedLocusNames=Xf0513;
Query Match
Best Local Similarity 77.0
77.0
                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                              Phage-related endolysin.
                                                                                                                           94 ČISVTLSPČ 102
                                                                                        1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                               Xylella fastidiosa.
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=2371;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=9a5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                   09PFZ3
                                                                                                                                                                                  RESULT 11
                                                                                                                                                                                                 ò
                                                                                                                         유
```

DB 2; Length 154;

73.1%; Score 38;

Query Match

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98326820, PubMed=9663687;
Bannantine J.P., Rockey D.D., Hackstadt T.;
"Tandem genes of Chlamydia psittaci that encode proteins localized to
the inclusion membrane.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=22569155; PubMed=12682364; DOI=10.1093/nar/gkg321; Read T.D., Myers G.S.A., Brunham R.C., Nelson W.C., Paulsen I.T., Heidelberg J.F., Holtzapple E.K., Khouri H.M., Federova N.B., Carty H.A., Umayam L.A., Haft D.H., Peterson J.D., Beanan M.J., White O., Salzberg S.L., Haia R.-C., McClarty G., Rank R.G., Bavoll P.M., Fraser C.M.; Genome sequence of Chlamydophila caviae (Chlamydia psittaci GPIC): examining the role of niche-specific genes in the evolution of the
                                                                                                                                                                                                                                                                                                                            Bacteria, Chlamydiae, Chlamydiales, Chlamydiaceae, Chlamydophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Drosophila melanogaster (Fruit fly).

Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.

NCBI_TaxID=7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73.1%; Score 38; DB 2; Length 198; 55.6%; Pred. No. 56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    198 AA; 20917 MW; 455E5EA09444FE29 CRC64;
                                                                                                                                                                                                                                                                                 Name=IncB; Synonyms=incB; OrderedLocusNames=CCA00491;
                                                                                                                                                                                          01-0AN-1998 (TrEMBLrel. 05, Created)
01-0AN-1998 (TrEMBLrel. 05, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      562 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic Acids Res. 31:2134-2147(2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mol. Microbiol. 28:1017-1026(1998).
                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AF017105; AAC46378.1; -. EMBL; AE016995; AAP05235.1; -.
                                                                                                                                                                                                                                                             Inclusion membrane protein B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAR-2004 (TrEMBLrel. 26, 1 CG113-PA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Conservative
                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |||:|:: |
157 CISLPIISC 165
                                                                                                                                                                                                                                                                                                        Chlamydophila caviae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLVPC 9
    ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
1 CISVPLVP
                                          78 CISVPMLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Complete proteome.
SEQUENCE 198 AA;
                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=83557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORFNames=CG1113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chlamydiaceae."
                                                                                                                                                    030782 PRI
030782; Q7BYES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9VN94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
Q9VN94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
```

ဖ

·.

Gaps

ö

Length 562;

73.1%; Score 38; DB 2; Length 562 55.6%; Pred. No. 1.6e+02; .ive 2; Mismatches 2; Indels

9 CVKVPIDPC 17

6

1 CISVPLVPC

Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases EMBL, ABC03603; AAF52054.1; -. FYyBase; FBGN03673704; CG1113. SEQUENCE SEC AA, 63406 WW; AC09FSB6F5D2F970 CRC64;

to the EMBL/GenBank/DDBJ databases

Submitted (SEP-2002)

SEQUENCE FROM N.A.

FlyBase;

SEQUENCE FROM N.A.

FlyBase

```
SEQUENCE FROM N.A.
MEDLINE-22426069; PubMed=12537572;
Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
Smith C.D., Tupy J.L., Whitfied E.J., Bayraktaroglu L., Berman B.P.,
Bettencourt B.R., Celniker S.E., de Grey A.D., Drysdale R.A.,
Harxis N.L., Richter J., Kusso S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Annotation of the Drosophila melanogaster euchromatic genome: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome Biol. 3:RESEARCH0083-RESEARCH0083(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   systematic review.";
                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
```

```
Ouery Match
Query Match
Best Local Similarity 55.6%;
Fina 5; Conservative
                                  ò
Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D., Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F., George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N., Sutcon G.G., Worthan J.R., Yandell M.D., Zhang Q., Chen L.X., Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D., R.A. Barndon R.C., Gabor G.L., Andrews-Pfannkoch C., Baldwin D., Ballew R.M., Baru A., An H.J., Andrews-Pfannkoch C., Baldwin D., Ballew R.M., Baru A., Barendal B.J., Bhandari D., Bolshakov S., Besoon K.Y., Benco P.V., Berman B.P., Bhandari D., Bolshakov S., Borkova D., Botcham M.R., Boulk J., Brokstein P., Brottier P., Burtis K.C., Busem D.A., Buller H., Cadieu E., Center A., Chandra I., Raburis K.C., Busem D.A., Buller H., Cadieu E., Center A., Chandra I., Raburis K.C., Bram D.A., Buller H., Cadieu E., Center A., Chandra I., Bodoon K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P. Burtis K.C., Evangelista C.C., Ferraz C., Ferriars C., Paris Chman M., Adong F. Gorrell J.H., Gu Z., Gulbart W.M., Glasser K., Godek A., Gong F. Gorrell J.H., Gu Z., Galbart W.M., Glasser K., Godek A., Gong F. Gorrell J.H., Wei M.H., Ibegwam C., Jalli M., Kalush F., Karpen G.H., Wei M.H., Ibegwam C., Jalli M., Kalush F., Karpen G.H., Wei M.H., Ibegwam C., Jalli M., Kalush F., Karpen G.H., Wei Z., Kennison J.A., Ketchum K.A., Liak C., Morris J., Mochrefi A., Mount S.M., Morntoch T.C., McLeod M.P., Mochrefi A., Mount S.M., Morntoch T.C., McLeod M.P., Mochrefi J., Morntoch T.C., McLeod M.P., Wohn W., Palazzolo M., Pittuman G.S., Pan S., Pollard J., Puri, V., Ree B.C., Stapleton M., Strong R., Swith T., Spier E., Spradling A.C., Stapleton M., Strong R., Sanith H.O., Williams S.M., Woodager M., Shung S., Yao Q.A., Yeh R., Shine E., Spradling A.C., Stapleton M., Strong R., Sanith H.O., Williams S.M., Woodager W., Wannard G., Zhung G., Zhan G., Shung G., Shu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kaminker J.S., Bergman C.M., Kronmiller B., Carlson J., Svirskas R., Patel S., Frise E., Wheeler D.A., Lewis S.E., Rubin G.M., Cabburner M., Celniker S.E. "The transposable elements of the Drosophila melanogaster euchromatin:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Venter C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=2426065; PubMed=12537568; Carlson J.W., Halpern A., Celniker S.E., Wheeler D.A., Kronmiller B., Carlson J.W., Halpern A., Patel S., Adams M., Champe M., Dugan S.P., Frise E., Hodgson A., George R.A., Hoskins R.A., Laverty T., Muzny D.M., Nelson C.R., Parelb J.M., Park S., Pfeiffer B.D., Richards S., Sodergen B.J., Svirskas R., Tabor P.E., Wan K., Stapleton M., Sutton G.G., Venter C., Weinstock G., Scherer S.E., Myers E.W., Gibbs R.A., Rubin G.M.; Finishing a whole-genome shorgun: Release 3 of the Drosophila melanogaster enchromatic genome sequence."; Genome Biol. 3:RESEARCH0079-RESEARCH0079(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a genomics perspective.";
Genome Biol. 3:RESEARCH0084-RESEARCH0084(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=22426070; PubMed=12537573;
```

```
Hypothetical protein Y24D9A.2.
Name=Y24D9A.2; ORFNames=Y24D9A.2;
Caenorhabditis elegans.
Elkaryota; Merazoa; Nemetoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                     "Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Waterston R.;
Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
[8]
                                                                                                                                                                                                                                                                                                         STRAIN=Bristol N2;
Cordes M., Wohldmann P.;
"The sequenco of C. elegans cosmid Y24D9A.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                     Waterston R.H.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Waterston R.;
Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to the EMBL/GenBank/DDBJ databases
                                                                  01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
                          568 AA.
                                                    01-DEC-2001 (TrEMBLrel. 19, Created)
                           PRT;
                                                                                                                                                                                                  STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
WormBase Consortium;
                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (AUG-2001)
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                             NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Waterston R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Waterston R.;
                           0966C5
RESULT 14
             0966C5
```

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana (Mouse-ear cress).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [1] — SEQUENCE FROM N.A. Raul S., Shea T.P., Fujii C.Y., Mason T.M., Rounsley S.D., Lin X., Kaul S., Shea T.P., Fujii C.Y., Mason T.M., Shen M., Ronning C.M., Fraser C.M., Somerville C.R., Venter J.C.; Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 66.7%; Score 38; DB 2; Length 568 Similarity 66.7%; Pred. No. 1.6e+02; 6; Conservative 1; Mismatches 2; Indels
                                                                                                [9]
SEQUENCE FROM N.A.
STRAIN-Bristol N2;
Waterston R.;
Waterston R.;
Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
                                                   Waterston R.;
Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TOWN C.D., Kaul S.,
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                        Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                              Wilson R.; Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; C84918; C84918.

PIR; T00416; T0016.

GO; GO:0005524; F:ATP binding; IEA.

GO; GO:0005265; F:ATP-dependent helicase activity; IEA.

GO; GO:0016787; F:hydrolase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JAN-1998 (TrEMBLrel. 05, Created)
01-AUG-1999 (TrEMBLrel. 11, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Putative ATP-dependent RNA helicase A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT; 1015 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AC005309; AAC63624.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            277 CSSKPIVPC 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=Bristol N2;
WormBase Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. STRAIN=Bristol N2; Waterston R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=At2g47680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             022243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DAT TO COCCOS SERVING THE SERVING SERV
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
```

```
DR GO; GO:0003676; F:nucleic acid binding; IEA.

DR InterPro; IPR011410; DEAD.

DR InterPro; IPR011545; DEAD.

DR InterPro; IPR011545; DEAD.

DR InterPro; IPR001650; Helicase—C.

DR InterPro; IPR00571; Zf_CCCH.

DR Ffam; PF00270; DEAD; 1.

DR Pfam; PF00271; Helicase—C; 1.

DR Pfam; PF00271; Helicase—C; 1.

DR SWART; SW00480; HELICC; 1.

DR SWART; SW00480; HELICA: 1.

DR SWART: SW00480; HELICA: 1.

DR
```

THIS PAGE BLANK (USPTO)

```
Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04533 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stacker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU04533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Aau04533 VECF base
Aau04552 VEGF base
Aau04526 VEGF base
Aau04545 VEGF base
Aau04545 VEGF base
Aau04545 VEGF base
Aau04542 VEGF base
Aau04501 Human foe
Abg22400 Novel hum
Aby77742 N. gonorr
Aay27025 Amino aci
Adg22537 Cyanophag
Aay32174 Chlamydia
Add25537 Cyanophag
Aay32174 Chlamydia
Add5644 Acinectoba
Abm85368 Human sec
Abb57779 Drosophil
Aag00458 Human sec
Abo71020 Rat cubil
Aay27020 Human sc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                          2005, 03:27:37; Search time 67.9315 Seconds (without alignments) 51.240 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                             2105692
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                       2105692 seqs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                          OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU04532
AAR6416
AAR64172
AAR81472
AAR81472
AAU04545
AAU04545
AAU04545
AAU04545
AAU04545
AAU04545
AAU32174
ABR82583
AAU32174
ADB64366
AAU32174
ADB64366
AAU32174
ABR85568
AAU32174
ABR85568
AAU32174
ABR85568
AAU32174
ABR8568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADA55489
ADR32240
                                                                                                                                                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2001s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqp2003as:*
geneseqp2003bs:*
geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Geneseq_16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                  seq length: 0
seq length: 200000000
                                                                                                                                                                                     US-09-761-636A-14
52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                          1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111
1101
11001
11001
11001
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
11000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
1000
10000
10000
10000
10000
10000
10000
10000
10000
10000
10000
1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              748.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB E
Maximum DB E
                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
```

Aau04544 VEGF base	Abp28862 Streptoco	Abo66858 Klebsiell	Adm26642 Hyperther	Adr09403 Human pro	Ads44128 Bacterial	Aaw85729 Novel pro	Adc38773 Human sec	Abo72214 Pseudomon	Aam93613 Human pol	Adl31405 Human pro	Abg03676 Novel hum	Aaw79090 Human sec	Aau12226 Human PRO	Aau09180 Human PRO	Aam49039 Human tes	Abp61791 Human pol	0 Novel	Abu80924 Human PRO	Abu66624 Human PRO
4 AAU04544	5 ABP28862	7 ABO66858	7 ADM26642	8 ADR09403	8 ADS44128	2 AAW85729	7 ADC38773	7 ABO72214	4 AAM93613	8 ADL31405	4 ABG03676	2 AAW79090	4 AAU12226	4 AAU09180	5 AAM49039	5 ABP61791	6 ABO17670	6 ABU80924	6 ABU66624
11	186	455		~	10	26	LO	06	120	120	200	249	249	249 4	249	249	_ თ	249	
36 69.2	36 69.2					35 67.3							35 67.3				9	35 67.3	35 67.3
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Location/Qualifiers 1. .9 /note= "This bond cyclises the peptide"

Cendron A; s, Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human NGED (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

```
to cyclisation are used to interfere with angiogenesis.

To cyclisation are used to interfere with angiogenesis.

The condition or lymphangiogenesis in a mammal with a condition

Coharacterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery

Corebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid or mammal in peripheral limbs or in lungs, peritoned cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
  peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidiaing the cysteine residues. The monocyclic peptides (comprising 2 linked monocyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; VEGF; vascular endothelial growth factor; angiogenesis;
neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovascular sequelae; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 52; DB 4; Length 9; 100.0%; Pred. No. 1.8e+06; rive 0; Mismatches 0; Indels

    10
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU04532 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF based monocyclic peptide 10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                       diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAU04532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

```
Detailed loop fragment from an exposed populate antiparation and peptide loop fragment from an exposed populate by continuous of peptides dimental by oxidising the cysteine residues. The monocyclic peptides, dimentic bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, neovascularisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, crebenovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive cremma, substance-induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to induced by vested and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by vested and lymphatic or brain. The peptides are used to inage blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by vested vested a chronic inflammation with an anti-inflammatcry agent, to treat a chronic inflammation, expecially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                 The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta beta carbon separation distances on opposite antiparallel strands of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79.8%; Score 41.5; DB 4; Length 10; 90.0%; Pred. No. 2.9; ive 0; Mismatches 0; Indels

    .11
    /note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                          Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU04526 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 79.8
Best Local Similarity 90.0
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPL-VPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04526;
residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04526
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
```

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    characterised by angiogenesis, neovascularisation or lymphangiogenesis.

Characterised by angiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumnour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, propertension induced neovascular permeability in a mammal (the mammal has a condition characterised by fluid accumilation in peripheral limbs or in lungs, peritoneal cavity, pleura, or sequelature. The monomeric and bicyclic peptides are used to interfere vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and a liboused in combination with an anti-inflammatory agent, to treat a least in the libouse and activity induced by VEGF, VEGF-C or -D and a libouse and libo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ï
                                                                                                                                                                                                                                                         The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, a contention or lymphangiogenesis in a mammal with a condition characterized by a monocyclic peptide with anglogenesis, and manned with a condition characterized by a measure of the content of the cyclic peptide with anglogenesis.
                                                                                                                    Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 41; DB 4; Length 11; Pred. No. 3.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             alkene monoxygenase; reductase; epoxidation; amoD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nocardia corallina reductase (encoded by amoD)
                                           Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                       Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                        Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR66216 standard; protein; 342
(LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.8%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93JP-00105171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gordonia rubripertinctus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPL--VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diabetic retinopathy
                                                                                 WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP06292571-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-OCT-2003
04-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR66216;
                                                                                                                                                                                     residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                      Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                the epoxidation of alkenes. The DNA is derived from Nocardia corallina and comprises 4 open reading frames. ORFs amoA and amoC encode subunits 1 and 2 of the alkene monoxygenase enzyme and ORF amoD encodes a reductase capable of transferring electrons from NADH coenzyme to a monoxygenase. (Updated on 16-OCT-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR81469-R81472 are protein products of the Nocardia corallina strain B-276 alkene mono-oxygenase gene. The gene encodes 4 protein products amoA, amoB, amoC and amoD derived from the 3 different reading frames of the operon. The gene is useful for the production of indigo via oxidation of indole. Nocardia corallina can be cultured in a medium contg. indole and will readily oxidise the indole yielding indigo into the culture medium. E. coli may also be transformed with the alkene mono-oxygenase gene and used as above to efficiently produce indigo by microbial oxidation. (Updated on 16-OCT-2003 to standardise OS field)
                                                                                                                                                                                                          Alkene mon:oxygenase and corresp. gene - useful for the epoxidation of
                                                                                                                                                                                                                                                                                                                                                          E.coli transformed with the DNA sequence AAQ79569 are able to catalyse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prepn. of indigo by a microbiological method - by culturing a microbe having alkene monoxigenase activity to oxidise indole to indigo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alkene mono-oxygenase; indole; indigo production; biosynthesis; microbial oxidation; dye.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nocardia corallina alkene mono-oxygenase gene product, amoD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 41; DB 2; Length 342;
Pred. No. 1.1e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR81472 standard; protein; 342 AA
                                                                                                                                                                                                                                                                                                Claim 2; Page 4-5; 30pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.8%; Scc... 77.8%; Pred 0; }
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 5; Page 8-9; 11pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gordonia rubripertinctus; B-276.
93JP-00105171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94JP-00179688.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94JP-00179688.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 77.8%,
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
(first entry)
                                                       (NIHA ) JAPAN ENERGY CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (NIHA ) JAPAN ENERGY CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1996-133426/14.
                                                                                                                 WPI; 1995-009069/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75 CASVPLEPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAT17418
                                                                                                                                                   N-PSDB; AAQ79569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 342 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-JUL-1994;
   06-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP08023988-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-OCT-2003
07-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR81472;
                                                                                                                                                                                                                                            alkene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR81472
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human very constant endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides of an a cyclic peptide by oxidising the cysteine residues. The monocyclic peptides dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one animo acid deleted prior to cyclisation are used to interfere with anglogenesis, neovascularisation or lymphanglogenesis in a mammal with a condition characterised by anglogenesis, neovascularisation or lymphanglogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangloma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restences; head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related anglogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver
                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or lymphangiogenesis, is produced by cyclizing a peptide loop fragment
from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel monomeric monocyclic peptide, used to interfere with angiogenesis,
                                                                            Gaps
                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                         Human; VEGF; vascular endothelial growth factor; angiogenesis;
neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovascular sequelae; rheumatoid arthritis;
diabetic retinopathy; chronic inflammation; cyclic.
                                    Score 41; DB 2; Length 342;
Pred. No. 1.1e+02;
0; Mismatches 2; Indels

    11
    /note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                  AAU04545 standard; peptide; 11 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stacker S,
                                                                                                                                                                                                                                                                                                                                                                   VEGF based monocyclic peptide 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JAN-2000; 2000US-0176293P.
                                      78.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                             (first entry)
                                Query Match.

Best Local Similarity 77.8
Matches 7; Conservative
                                                                                                                                                    75 CASVPLEPC 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hughes RA,
                                                                                                              1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-442248/47.
Sequence 342 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200152875-A1
                                                                                                                                                                                                                                                                                                                             26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                         AAU04545;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         residues.
                                                                                                                                                                                                            RESULT 6
                                                                                                                                                                                                                                  AAU04545
                                                                                                                ò
                                                                                                                                                셤
```

```
1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VBGF. VBGF.C or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                        .;
?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                     DB 4; Length 11;
                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cendron A;
                                                                                                                                                                                                                   Score 40; DB 4
Pred. No. 5.6;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                  AAU04542 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VEGF based monocyclic peptide 20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                     76.9%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                        8; Conservative
                                                                                                                                                                                                                                                                                                                 CVSVPLTTVPC 11
                                                                                                                                                                                                                                                                                         σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hughes RA,
                                                                                                                                                                                                                                                                                         1 CISVPL--VPC
                                                                                                                                                diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442248/47.
                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                 Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; VEGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                 Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     residues
                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                     AAU04542
   8$8888888888
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                         g
```

The invention relates to novel foetal polypeptides encoded by polymucleotides comprising one of 477 sequences fully defined in the specification. The foetal polymucleotides and polypeptides are useful in the treatment and diagnosis of diseases such as cancers, immune disorders, growth disorders (e.g. osteoporosis), thrombolytic disorders, nervous system disorders and inflammation. The present sequence is a polypeptide encoded by a CDNA assembled using an expressed sequence tag (EST) found to be expressed in human foetal tissue cDNA libraries

8888888888888

ö

Gaps

ö

75.0%; Score 39; DB 4; Length 101; 87.5%; Pred. No. 72; ive 0; Mismatches 1; Indels

Best Local Similarity 87.5 Matches 7; Conservative

Query Match

Sequence 101 AA;

1 CISVPLVP

g

ઠ

```
1;
                         neovascularisation or lymphangiogenesis in a mammal with a condition characterised by anglogenesis, neovascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura,
                                                                                                                                                                                                                                                                                                                                                                                                                or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF. VEGF-C or -D and are also used in combination with an anti-inflammarcry agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; foetal protein; cytostatic; immunosuppressive; immunostimulant; nootropic; neuroprotective; thrombolytic; osteopathic; antiinflammatory; gene therapy; antisense therapy; cancer; immune disorder; growth disorder; osteoporosis; thrombolytic disorder; netroprotes; thrombolytic disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chronic inflammation, especially rheumatoid arthritis, psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 39; DB 4; Length 11;
Pred. No. 8.1;
; Mismatches 0; Indels
cyclisation are used to interfere with angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human foetal protein, SEQ ID NO: 232.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAM06501 standard; protein; 101 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JAN-2000; 2000US-00491404.
15-SEP-2000; 2000US-00663870.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75.0%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JAN-2001; 2001WO-US002723.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-SEP-2000; 2000US-00663870 06-NOV-2000; 2000US-00707351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1:|||| |||
1 CLSVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CISVPL--VPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200155339-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAM06501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAMMO 6501

IID AAMMO 6501

IID AAMMO 7

XXX XXX AAM OD T 05-C

XXX HUUNE

EXAMORY HUUNE

EXAMOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
$$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
```

```
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PGT) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal cutivity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food of sites expressing (II). (I) and (II) are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations creponsible for genetic disorders or other traits to assess biodiversity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                          Human, chromosome mapping, gene mapping, gene therapy, forensic, food supplement, medical imaging, diagnostic, genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 20; SEQ ID NO 52759; 103pp; English.
                                                                                                                   Novel human diagnostic protein #22391.
ABG22400 standard; protein; 102 AA.
                                                                                                                                                                                                                                                                                                                                                                           31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tang YT;
                                                                                                                                                                                                                                                                                                                                       30-MAR-2001; 2001WO-US008631.
                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-639362/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                      (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAS86587
                                                                                                                                                                                                                                                           WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       biodiversity.
                                                                                                                                                                                                                       Homo sapiens
                                                                               18-FEB-2002
                                                                                                                                                                                                                                                                                                11-OCT-2001.
                                        ABG22400;
```

Novel fetal proteins useful for the treatment and diagnosis of diseases associated with dysfunction of the protein e.g. cancers, immune disorders, growth disorders, thrombolytic disorders, nervous system disorders and inflammation.

Claim 10; Page 264; 715pp; English

Tang YT;

Drmanac RA,

Boyle BJ, Arterburn MC, Werhman T;

Zhou P,

Ford JE,

Ö

Yeung G Liu C,

Asundi V,

2001-465571/50.

N-PSDB; AAH94176.

88888888888

ð

```
AAY27025 standard; protein; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-479045/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 44 AA;
                                                                                                                                                                                                                                         W09937757-A1.
                                                                                                                                                                                                                                                                                                      21-JAN-1999;
                                                                                                                                                                                                                                                                                                                                   22-JAN-1998;
                                                                                 08-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                              Hammond TG,
                                                                                                                                                                                                                                                                       29-JUL-1999.
                                                                                                                                                                                                             Rattus sp.
                                                   AAY27025;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
      AAY27025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADG22537
                    à
                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Also disclosed are the nucleic acid molecules encoding the proteins and antibodies that specifically bind to the proteins. The composition comprising the protein, nucleic acid or antibody is useful for the manufacture of a medicament for treating or preventing N. gonorrhoeae infection, this may be in the form of a vaccine or gene therapy. Sequences given in records ABP76736-ABP81046 represent nucleic acid molecules of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New protein from Neisseria gonorrheae, useful for the manufacture of medicament for treating or preventing N. gonorrheae infection.
                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to proteins from Neisseria gonorrhoeae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                           Score 39; DB 4; Length 102; Pred. No. 73; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75.0%; Score 39; DB 6; Length 347; 75.0%; Pred. No. 2.4e+02; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                           Antibacterial; infection; vaccine; gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                             N. gonorrhoeae amino acid sequence SEQ ID 2014.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Masignani V, Monaci E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure, Page 334; 815pp; English.
                                                                                                                                                                                                                                                                                                                 ABP77742 standard; protein; 347 AA.
                                                                                                                                          75.0%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-FEB-2002; 2002WO-IB002069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-FEB-2001; 2001GB-00003424
                                                                                                                                                                                                                                                                                                                                                                                07-MAR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Conservative
                                                                                                                                                                             7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neisseria gonorrhoeae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fontana MR, Pizza M,
                                                                                                                                                                                                                             24 CFSVPLVP 31
                                                                                                                                                                                                          1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-058415/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPLVP 8
                                                                                                                                           Query Match
Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CHIR-) CHIRON SPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ABZ38712
                                                                                                             Sequence 102 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 347 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200279243-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-OCT-2002,
                                                                                                                                                                                                                                                                                                                                                 ABP77742;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                  RESULT 10
                                                                                                                                                                                                                                                                                                   ABP77742
```

|:|:|||| 156 CVSLPLVP 163

ò 윱 RESULT 11

```
The invention relates to a rat cubilin protein. Cubilin is a ligand-binding, epithelial glycoprotein receptor that facilitates uptake of intrinsic factor/vitamin Blz complexes in intestines and kidney. It is also involved in endocytosis and trafficking of light immunoglobulin chains in renal proximal tubule cells. Host cells containing a vector comprising the rat cubilin DNA sequence can be used for the recombinant expression of the protein. Cubilin, or its fragments, are used to treat or reduce toxicity, particularly in kidneys, spleen, brain, liver, heart and thyroid. Cubulin mutations may also be implicated in idiopathic proteinural, fetal malformation, poor fetal development and spontaneous abortions. Cubilin may also be used to raise specific antibodies, used for its detection, or clones that express it, in standard immunoassays. Fragments of cubilin DNA can also be used to detect cubulin mRNA in cell and tissues, by hybridization. Abnormal levels of cubilin in the urine are indicative of kidney damage. Sequences ANY27021-35 represent EGF repeat sequences of rat cubilin and from homologous regions of other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                      Cubilin, epithelial glycoprotein receptor; vitamin B12; endocytosis; toxicity; kidney; spleen; brain; liver; heart; thyroid; abortion; rat; proteinuria; fetal malformation; fetal development; kidney damage; EGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New DNA encoding cubilin, used for treating toxicity, particularly nephrotoxicity, and as marker of kidney damage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 38; DB 2; Length 44;
Pred. No. 46;
0; Mismatches 3; Indels
                                                                      Amino acid sequence of rat cubilin EGF5 repeat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (INRM ) INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cyanophage S-2L encoded protein #282.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 18; Fig 6A; 135pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADG22537 standard; protein; 110 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TULA ) TULANE EDUCATIONAL FUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0072197P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US001259,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 66.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Verroust PJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CSQAPLVPC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADG22537;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EX BX BX BX
```

```
This sequence represents novel infection-specific protein IncB of chlamydia psittaci strain GPIC. IncB is found in the inclusion membrane of infected cells. It is associated primarily with the vegetative reticulate body form of Chlamydia rather than with the refractile elementary body form. The invention includes: a vaccine directed against the reticulate body form of Chlamydia comprising 1 or more infection-specific proteins (see AAY3210-78), including IncA, IncB and IncC; methods of using and producing such a vaccine; methods for detection of infection-specific antibodies or antigens in a biological specimen; and a method of using therapeutic agents specifically directed against infection-specific peptides, or the genes that code for such peptides, treat, chlamydial infection. (Updated on 17-OCT-2003 to standardise OS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sugiyama T, Otsuki T, Wakamatsu A, Sato H, Ishii S;
, Isono Y, Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, pharmaceutical, diagnostic, gene therapy; tissue regeneration, cell regeneration, membrane protein, signal transduction-related protein, transcription-related protein, osteoporosis, neurological disease,
                                                                                                                                                                                Novel bacterial infection specific proteins for treating and diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73.1%; Score 38; DB 2; Length 198; 55.6%; Pred. No. 2e+02; ive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human protein encoded by clone FCBBF30171230.
                                                                                                                                                                                                                            Claim 1; Page 41-42; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB64366 standard; protein; 208 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HELI-) HELIX RES INST.
(REAS-) RES ASSOC BIOTECHNOLOGY.
              98US-0082438P.
98US-0082588P.
98US-0086450P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-MAR-2002; 2002EP-00007401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-NOV-2001; 2001JP-00379298.
25-JAN-2002; 2002US-00350978.
                                                                                                       Bannantine JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                         (UYOR-) UNIV OREGON STATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |||:|:: |
157 CISLPIISC 165
                                                                                                                                                                                               chlamydial infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVPLVPC 9
                                                                                                                                  WPI; 1999-633904/54.
N-PSDB; AAZ34588.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 198 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer; tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EP1308459-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Isogai T, Su
Yamamoto J,
                 20-APR-1998;
                            21-APR-1998;
22-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5,
                                                                                                       Rockey DD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB64366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB64366
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to the entire genome of cyanophage S-2L, and to the protein encoded by it. Genes isolated from the genome of S-2L are useful for preparing enzymes for synthesis of D-bases (D = 2,6-diaminopurine), particularly D, dDMP and dDTP, or polynucleotides containing these bases, polymerases involved in metabolism of D-bases and deoxynucleotide analogs, for chemotherapy of AIDS. The genes, and encoded polypeptides, can be used for detection and/or identification of S-2L, and for identifying agents that modulate synthesis of D-bases or polynucleotides containing them, and fusions of S-2L polypeptides with an antigen can be used to raise specific antibodies, useful for detecting S-2L. This sequence corresponds to one of the proteins encoded by the cyanophage S-
                                                                                                                                                                                                                                                                                                                                                   New genomic sequence for cyanophage S-2L, useful for identifying genes for synthesis of 2,6-diaminopurine bases or polynucleotides containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                     Galisson F, Bouzon M, Pochet S; Robert C, Vico V;
              genome; cyanophage; 2; 6-diaminopurine; chemotherapy; AIDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 38; DB 8; Length 110;
Pred. No. 1.1e+02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chlamydia psittaci infection-specific protein IncB.
                                                                                                                                                                                                                            SEQUENCAGE GRP INTERE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IncB; infection; vaccine; therapy; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                             Claim 6; SEQ ID NO 283; 423pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY32174 standard; protein; 198 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73.1%;
55.6%;
                                                                                                                                    30-APR-2002; 2002FR-00005424.
                                                                                                                                                                  30-APR-2002; 2002FR-00005424.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US008744
                                                                                                                                                                                              (INSP ) INST PASTEUR.
(CNRS ) CNRS CENT NAT RECH
(GENO-) GENOSCOPE CENT NAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                        Marliere P, Kaminski PA,
Weissenbach J, Saurin W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                      WPI; 2004-045746/05.
N-PSDB; ADG22255.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | :|| :||
50 CATVPTIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 110 AA;
                                          Cyanophage S-2L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chlamydophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9953948-A1
                                                                         FR2839079-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-OCT-2003
01-FEB-2000
                                                                                                       31-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2L genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY32174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
The invention discloses a polynucleotide comprising a sequence selected from 1970 fully defined nucleotide sequences which encode novel from 1970 fully defined nucleotide sequences which encode novel polypeptides. Also claimed is a polypeptide encoded by the polynucleotide or its partial peptide, immunologically assaying the polypeptide or peptide of the polynucleotide, immunologically assaying the polypeptide or peptide with the antibody of the encoded by contacting the polypeptide or peptide with the antibody of the encoded protein, and observing the binding between the two, a transformant carrying the polypucleotide in an expressible manner and an antisense polynucleotide. The oligonucleotide is useful as a primer for synthesising the polynucleotide, or as a probe for detecting the polynucleotide. The polynucleotide and encoded protein are useful as pharmaceutical agents and many disease-related genes may be included in them, for developing a diagnostic marker or medicines for requisition of their expression and activity, or as targets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of gene therapy. The genes are involved in tissue and/or cell regeneration. Membrane proteins, signal transduction-related proteins, transcription-related proteins, disease-related proteins and genes encoding them can be used as indicators for diseases (e.g. osteoporosis, neurological diseases, cancer, tunnours. The CDNA may be used to requiate the activity or expression of the encoded protein to treat diseases. The sequence presented is a protein of the invention. Note: Some of the sequence data for this patent is not represented in the printed specification, but is based on sequence information supplied by the European Patent Office.
                                                                                                                                                                                                                                                                           polynucleotides and polypeptides, useful for developing a diagnostic ter or medicines for regulation of their expression and activity, or
     Nagahari K, Masuho Y;
Otsuka M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page; 222pp; English.
                                                                                                                                                                                                                                                                                                                                                                 as targets of gene therapy
Yoshikawa T,
                                                                                                      WPI; 2003-450961/43.
                                                                                                                                                                                                                                                                                                                               marker or medicines
                                                                                                                                                               N-PSDB; ADB62396
Seki N,
```

73.1%; Score 38; DB 7; Length 208; 66.7%; Pred. No. 2.2e+02; rative 1; Mismatches 2; Indels 6; Conservative Local Similarity Sequence 208 AA; Query Match Matches

ઠે 셤

ö

Gaps ;

> ABM85368 standard; protein; 413 AA. Mouse protein sequence mCP2310 18-NOV-2004 (first entry) ABM85368;

Cytostatic; carcinoma; lymphoma; cancer; murine. WO2003073826-A2. Mus musculus

01-MAR-2002; 2002US-00087192. 28-FEB-2003; 2003WO-US006235

12-SEP-2003,

(SAGR-) SAGRES DISCOVERY

Morris DW;

Recombinant nucleic acid useful for diagnosis and treatment of carcinoma comprises a nucleotide sequence. WPI; 2003-328604/31.

Claim 5; SEQ ID NO 519; Opp; English.

are associated with carcinomas. The sequences are useful for: (i) for screening drug candidates; (ii) for screening of bioactive agent capable of bioactive agent capable of a bioactive agent capable of modulating the activity of CAP; (iii) for screening of evaluating the effect of a candidate carcinoma drug; (v) for diagnosing carcinoma; (vii) for inhibiting the activity of CAP; (ivi) for treating carcinoma; (viii) for neutralizing the effect of CAP; (ivi) for treating carcinoma; (viii) for neutralizing the effect of CAP; (ivi) for treating carcinoma; (viii) for modulating the effect of CAP; (ivi) for determing carcinoma Associated (CA) gene copy number. In addition, the CA genes are useful as DNA vaccines and the CAP are useful as markers of carcinoma including lymphoma. The present sequence is one such CAP. Note: This patent is an equivalent to basic patent US2002182586A1, for which no sequence data was published The present invention relates to novel DNA and protein sequences which

Sequence 413 AA;

Gaps ö Score 38; DB 7; Length 413; Pred. No. 4.2e+02; 0; Mismatches 3; Indels 73.1%; 66.7%; Query Match Best Local Similarity 66./*

ö

287 ĆSQAPĽVPĆ 295 1 CISVPLVPC 9 ઠ 셤

Search completed: April 1, 2005, 09:18:26 Job time : 69.9315 secs

Sequence 10,

ĕ

```
м
м
метерите и петерите и петери
   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                         (without alignments)
13.493 Million cell updates/sec
                                                                                                                                                                                                                                 April 1, 2005, 09:26:18 ; Search time 221.178 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published Applications AA:*

1: \cgn2 \( \) \cgn2 \( \) \cgn \( \)
                                GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1413372 seqs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Listing first 45 summaries
                                                                                                                                                                     protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-14
52
1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                 score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                          Title:
Perfect
                                                                                                                                                                                                                                         Run on:
```

	Description	Sequence 14, Appl	Sequence 13, Appl	Sequence 7, Appli	Sequence 26, Appl	Sequence 23, Appl	Sequence 181998,	Sequence 2520, Ap	Sequence 519, App	Sequence 56887, A	Sequence 258586,	Sequence 165772,	Sequence 158427,	Sequence 3057, Ap
	ID	US-09-761-636A-14	US-09-761-636A-13	US-09-761-636A-7	US-09-761-636A-26	US-09-761-636A-23	US-10-437-963-181998	US-10-104-047-2520	US-10-087-192-519	US-10-767-701-56887	US-10-424-599-258586	US-10-424-599-165772	US-10-424-599-158427	US-10-094-749-3057
		6	6	σ	σ	δ	16	15	13	16	15	15	15	15
	Query Match Length DB	6	10	11	11	11	71	208	413	80	87	94	149	310
æ	Query Match	100.0	79.8	78.8	76.9	75.0	75.0	73.1	73.1	71.2	71.2	71.2	71.2	71.2
	Score	52	41.5	41	40	39	39	38	38	37	37	37	37	37
	Result No.	1	7	٣	4	S	9	7	œ	σ	10	11	12	13

SUMMARIES

Sequence 148570, Sequence 148570, Sequence 159284, Sequence 159284, Sequence 155151, Sequence 12558, Apple Sequence 131, Apple Sequence 225406, Sequence 225406, Sequence 225402, Sequence 162997, Sequence 110, Apple Sequence 110, Appl	ngth 9; Indels 0; Gaps 0;
09-761-636A-25 -10-437-963-148570 -10-437-963-148570 -10-437-963-159284 -10-437-963-185284 -10-437-963-187-963	Score 52; DB 9; Le Pred. No. 1.3e+06; 0; Mismatches 0;
11 9 51 16 60 11 9 61 16 62 16 63 15	100.0%; 17 100.0%; 2rvative
36 69. 36 69. 36 69. 36 69. 36 69. 36 69. 37 69. 38 69. 38 69. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 38 67. 39 67. 39 67. 31 67. 31 67. 32 67. 33 67. 34 67. 35 67. 36 67. 37 67. 38 67. 38 67. 38 67. 39 67. 39 67. 31 67. 31 67. 32 67. 33 67. 34 67. 35 67. 36 67. 37 67. 38 67. 38 67. 39 67. 39 67. 39 67. 31 11.00 DATE PELICATICATICATICATICATICATICATICATICATICAT	Match Local Similarity les 9; Conser 1 CISVPLVPC 1 LISVPLVPC 1 CISVPLVPC
15 11 11 11 11 12 20 20 20 20 20 20 20 20 20 20 20 20 20	Query M Best Lo Matches Qy Db

RESULT 2 US-09-761-636A-13

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: BARCHER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 23
                APPLICANT: CENDERON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION VUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PILING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 26
LENGTH: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 39; DB 9; Length 11;
Pred. No. 5;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                             Score 40; DB 9;
Pred. No. 3.4;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 181998, Application US/10437963; Publication No. US20040123343A1; GENERAL INFORMATION: APPLICANT: La ROSa, Thomas J.; APPLICANT: Kovalic, David K.; APPLICANT: Zhou, Yihua; APPLICANT: Wu, Wei; APPLICANT: Buokharov, Andrey A.; APPLICANT: Buokharov, Andrey A.; APPLICANT: Barbazuk, Brad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 23, Application US/09761636A Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75.0%;
72.7%;
                                                                                                                                                                                                                                                                                                                      TYPE: PRT
CRGANISM: synthetic construct
US-09-761-636A-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , UKGANISM: SYNThetic construct
US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 76.9%;
Best Local Similarity 72.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 75.0
Best Local Similarity 72.7
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVSVPLTTVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |:|||| |||
1 CLSVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPL--VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPL--VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-437-963-181998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-761-636A-7

(Sequence 7, Application US/09761636A

Sequence 7, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:

APPLICANT: STACKER, Steven

APPLICANT: STACKER, Steven

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REPRENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT FILING DATE: 2000-01-18

PRIOR PILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-18

SROID NUMBER OF SEQ ID NOS: 34

SEQ ID NOS: 34

SEQ ID NO 7

TENGENT 1
                                                           APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2000-01-01-8
PRIOR FILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 13
LENOTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 41.5; DB 9; Length 10;
Pred. No. 1.7;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78.8%; Score 41; DB 9; Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 2.3;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 26, Application US/09761636A; Patent No. US20020065218A1; GENERAL INFORMATION:
Sequence 13, Application US/09761636A
Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 90.0%;
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 81.8
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPL--VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
US-09-761-636A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPL-VPC 9
                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
US-09-761-636A-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-761-636A-7
```

g

ઠે

ä

STACKER, Steven

APPLICANT: ACHEN, Marc APPLICANT: STACKER, ST

Query Match

ઠે ద

ï

```
Sequence 258586, Application US/10424599

Publication No. US20040031072A1

GENERAL INFORMATION:
FILE REFERENCE:
GURENT APPLICATION NUMBER: US/10/424,599
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 56887, Application US/10767701

Sequence 56887, Application US/10767701

GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof For Plant Improvement
FILE REFERENCE: 38-21(53535)B
CURRENT APPLICATION NUMBER: US/10/767,701
NUMBER OF SEQ ID NOS: 63128
SEQ ID NO 56887
LIENGTH: 80
                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                          Length 413;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      71.2%; Score 37; DB 16; Length 80;
66.7%; Pred. No. 76;
iive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                          Score 38; DB 13; Length 41
Pred. No. 2.6e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_75528C.1.pep
US-10-424-599-258586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 37; DB 15;
Pred. No. 82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; FEATURE:
; OTHER INFORMATION: Clone ID: 30950363.pep
US-10-767-701-56887
                                                                                                                             ; LOCATION: (1)...(413); OTHER INFORMATION: Xaa = Any Amino Acid US-10-087-192-519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71.2%;
55.6%;
                                                                                                                                                                                                                                                             73.1%;
                                                                                                                                                                                                                            Query Match
Best Local Similarity 66.70,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                      287 CSQAPLVPC 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19 CISPPAAPC 27
                                       ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 6; Conserv;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                     FEATURE:
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-767-701-56887
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21 (53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 181998
LENGTH: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2520, Application US/10104047

Publication No. US20030236392A1

GENERAL INFORMATION:

TITLE OF INVENTION: No. US20030236392A1e1 full length cDNA

FILE REFERENCE: H1-A0105

CURRENT FILING DATE: 2002-03-25

PRIOR APPLICATION NUMBER: US/10/104,047

PRIOR APPLICATION NUMBER: 2002-03-25

PRIOR APPLICATION NUMBER: 3002-03-25

NUMBER OF SEQ ID NOS: 4096

SOFTWARE: PALENTIN Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73.1%; Score 38; DB 15; Length 208; 66.7%; Pred. No. 1.3e+02; Vative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 39; DB 16; Length 71; Pred. No. 31; 0; Indels 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 519, Application US/10087192
| Publication No. US20020182586A1
| GENERAL INFORMATION:
| APPLICANT: Moris, David W. |
| APPLICANT: Moris, David W. |
| TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR |
| TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR |
| TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR |
| TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR |
| TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR |
| FILE REFERENCE: 529452000122 |
| CURRENT FILING DATE: 2002-03-01 |
| PRIOR PILING DATE: 2000-12-22 |
| PRIOR PLING DATE: 2000-12-22 |
| PRIOR PRIOR DATE: 2000-12-22 |
| PRIO
                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Clone ID: PAT_MRT4530_79226C.1.pep
US-10-437-963-181998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 62.5%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
CORGANISM: Homo sapiens
US-10-104-047-2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33 CASLPLSPC 41
                                                                                                                                                                                                                                                                                                                               ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |:|:||:|
57 CLSIPLIP 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 7
US-10-104-047-2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
US-10-087-192-519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 2520
LENGTH: 208
                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

ö

21 CRSCPWPC 29

1 CISVPLVPC

중 원

ö

0; Gaps

2; Indels

2; Mismatches

5; Conservative

Matches

|:|: | || 69 CLSIQLTPC 77

셤

1 CISVPLVPC 9

```
Sequence 10, Application US/10467506A
Publication No. US20040170994A1
GENERAL INFORMATION:
APPLICANT: Gallen, David Fredrick
APPLICANT: Withmore, Scott
APPLICANT: Withmore, Scott
APPLICANT: Withmore, Scott
APPLICANT: Withmore, Scott
APPLICANT: Powell, Jason
FILLE OF INVENTION: DAS EQUENCES FOR HUMAN TUMOUR SUPPRESSOR GENES
FILLE REFERENCE: 1386-15
CURRENT FILNG DATE: 2003-12-03
FRICH APPLICATION NUMBER: PCT/AU02/00138
FRICH APPLICATION NUMBER: PCT/AU02/00138
FRICH APPLICATION NUMBER: PCT/AU02/00138
FRICH APPLICATION VUMBER: PCT/AU02/00138
SPRIOR FILING DATE: 2002-02-12
SOFTWARE: Patentin version 3.2
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 37; DB 15; Length 310;
Pred. No. 2.9e+02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
FRIOR APPLICATION NUMBER: 6/350,435
FRIOR FILING DATE: 2002-01-24
FRIOR PELING DATE: 2002-01-24
FRIOR PILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SOFTWARE: PatentIn Ver. 2.1
SOFTWARE: 1057
SEQ ID NO 3057
LENGTH: 310
                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: OTSUKA, MOTOVUKI
APPLICANT: NAGARARI, KENJI
APPLICANT: NAGARI, YASUNIKO
TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA
FILE REFERENCE: 084335/0160
                     Sequence 3057, Application US/10094749 Publication No. US20030219741A1 GENERAL INFORMATION:
                                                                                                                                                                                                 ISHII, SHIZUKO
YAMAMOTO, JUN-ICHI
ISONO, YUUKO
HIO, YURI
OTSUKA, KAORU
                                                                                  APPLICANT: ISOGAI, TAKAO
APPLICANT: SUGIYAMA, TOMOYASU
APPLICANT: OTSUKI, TETSUJI
APPLICANT: WAKAMATSU, AI
APPLICANT: SATO, HIROYUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71.2%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                    SEKI, NAOHIKO
YOSHIKAWA, TSUTOMU
                                                                                                                                                                                                                                                                                                                                                               TAMECHIKA, ICHIRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 55.
Pest Local Similarity 55.
                                                                                                                                                                                                                                                                                                                                        IRIE, RYOTARO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       202 CLSLPQAPC 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLVPC 9
US-10-094-749-3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-094-749-3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
US-10-467-506A-10
                                                                                                                                                                                                                             APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
           Sequence 165772, Application US/10424599

Sequence 165772, Application US/10424599

Publication No. US20040031072A1

GENERAL INFORMATION:

APPLICANT: La Rosa Thomas J

APPLICANT: Zhou Yihua

APPLICANT: Cao Yongwei

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

TITLE OF INVENTION Plants and Uses Thereof for Plant Improvement

TILE REFERENCE: 38-21(53223)B

CURRENT APPLICATION NUMBER: US/10/424,599

CURRENT FILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 285684

SEQ ID NO 165772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 158427, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
CURRENT APPLICANT: 2003-04-28
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQUENCE: 1D NOS: 285684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71.2%; Score 37; DB 15; Length 149; 66.7%; Pred. No. 1.4e+02; ive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 37; DB 15; Length 94;
Pred. No. 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_120707C.1.pep
US-10-424-599-165772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Clone ID: PAT_MRT3847_114078C.1.pep
US-10-424-599-158427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: (1)..(94)
OTHER INFORMATION: unsure at all Xaa locations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: (1)..(149)
OTHER INFORMATION: unsure at all Xaa locations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33 CVSKPGVPC 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLVPC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
US-10-424-599-158427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 149
                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

ö

```
ô
                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                   Sequence 25, Application US/09761636A
; Sequence 25, Application US/09761636A
; Patent No. US20202065218A1
; GENERAL INFORMATION:
; APPLICANT: ACTEN, MAC
; APPLICANT: STACKER, Steven
; APPLICANT: CENDRON, Angles
; TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
; TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
; FILE REFERENCE: 1064/48505 Achen et al
; CURRENT APPLICATION NUMBER: US/09/761,636A
; CURRENT PILING DATE: 2000-01-18
; PRIOR FILING DATE: 2000-01-01
; PRIOR FILING DATE: 2000-05-16
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PATENTIN VERSION 3.0
; SEQ ID NO 25
LENGTH: ...
                                                                                                                                                             ö
                                                                                                           Query Match 71.2%; Score 37; DB 16; Length 320; Best Local Similarity 75.0%; Pred. No. 3e+02; Matches 6; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 36; DB 9; Length 11;
Pred. No. 16;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT; ORGANISM: synthetic construct
US-09-761-636A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 63.6%;
Matches 7; Conservative ;
; LENGTH: 320
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-467-506A-10
                                                                                                                                                                                                                        67 CISLPLLP 74
                                                                                                                                                                                                 1 CISVPLVP 8
                                                                                                                                                                                                                                                                                                          RESULT 15
US-09-761-636A-25
                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                   δ
```

Search completed: April 1, 2005, 10:36:34 Job time : 221.178 secs

1 CISLPISSVPC 11

ઠે g

7

Gaps

5

THIS PAGE BLANK (USPTO)

```
500 CVPVTC 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-09-902-540-12179
                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-949-016-9436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-949-016-9436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 65, Appl
Sequence 56, Appl
Sequence 63, Appl
Sequence 67, Appl
Sequence 59, Appl
Sequence 67, Appl
Sequence 67, Appl
Sequence 67, Appl
Sequence 57, Appl
Sequence 57, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 57, Appl
Sequence 57, Appl
Sequence 57, Sppl
Sequence 57, Sppl
Sequence 58544, Aspl
Sequence 88544, Aspl
Sequence 68544, Aspl
Sequence 40392, Aspl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4708, Ap
61, Appli
61, Appli
65, Appli
65, Appli
55, Appl
63, Appl
67, Appl
68, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                              April 1, 2005, 07:04:23 ; Search time 13.3151 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued Patents AA:*

(cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

(cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
version 5.1.6
- 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 US-09-949-016-9436

4 US-09-328-352-4708

4 US-09-328-352-4708

1 US-08-328-071-61

1 US-08-328-071-62

1 US-08-325-071-56

1 US-08-325-071-56

1 US-08-325-071-56

1 US-08-325-071-56

1 US-08-325-071-63

1 US-08-325-071-63

1 US-08-325-071-67

1 US-08-325-071-67

1 US-08-461-004A-67

1 US-08-461-004A-67

1 US-08-461-004A-67

1 US-08-461-004A-67

1 US-08-461-004A-67

1 US-09-461-67

1 US-09-461-67

1 US-09-461-83

1 US-09-561-703B-3

1 US-09-270-767-58544

1 US-09-270-767-58544

1 US-09-270-767-58544

1 US-09-270-767-58544

1 US-09-270-767-58544

1 US-09-270-767-58544
                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                              513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                          protein search, using sw model
                                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 , Gapext 0.5
GenCore
Copyright (c) 1993
                                                                                                                                                                                     US-09-761-636A-12
38
                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                 1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126436
                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       f a
                                                                            OM protein -
                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
No.
```

```
FACELLANT NO. 100 12323.

FARENTAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

FILE REPERENCE: CLOO1307

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR FILING DATE: 2000-10-03

PRIOR PLILNG DATE: 2000-10-03

PRIOR PLILNG DATE: 2000-10-03

PRIOR PLILNG DATE: 2000-10-03

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 9436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                             Sequence 65, Appl
Sequence 34836, A
Sequence 50053, A
Sequence 33504, A
Sequence 48721, A
                                                                                                                                                                                 90, Appli
9, Appli
5, Appli
5, Appli
5, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 12179, Application US/09902540
Batent No. 681344710:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Hinkle, Gregory J.
APPLICANT: Hinkle, Roger C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REPRENCE: 38 10 (151849) B
FILE REPRENCE: 38 10 (151849) B
CURRENT APPLICATION NUMBER: 05/9902,540
PRIOR PILING DATE: 2001-07-10
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                       Sequence Seq
                                                                                        Sequence
                                                                                                                                        Sequence
                                             Sequence
                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92.1%; Score 35; DB 4; Length 717; 83.3%; Pred. No. 3.1e+02; ive 1; Mismatches 0; Indels
                                      ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9436, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5; Conservative
```

```
Length 549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: COBON, Stewart Gary
APPLICANT: COBON, Stewart Gary
APPLICANT: MOORE, Joanna Terry
APPLICANT: JOHNSON, Law Anthony York
APPLICANT: WILLADSEN, Peter
APPLICANT: KEMP, David Harold
APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith No. 6235283man
TITLE OF INVENTION: BNA Encoding A Cell Membrane
TITLE OF INVENTION: Glycoprotein Of A Tick Gut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NNS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 33; DB 1; I
Pred. No. 5.2e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60042/111 BIAU
                                                                                                                                                                                                       PCT/AU87/00401
                  FILING DATE: 17-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/926,368
FILING DATE: 07-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/242,196
MBER: US 08/062,109
17-MAY-1993
                                                                                                                                              PRICKATION NOMBER: 07,244,135
FILING DATE: 06-JUL-1988
PRICK APPLICATION DATA:
FILING DATE: 06-JUL-1988
FILING DATE: 27-NOV-1987
PRICK APPLICATION DATA:
PRICK APPLICATION DATA:
FILING DATE: 16-OCT-1987
PRICK APPLICATION NUMBER: AU P14912
FILING DATE: 16-OCT-1987
PRICK APPLICATION DATA:
PRICK APPLICATION NUMBER: 40 PH9196
FILING DATE: 27-NOV-1986
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 60042/1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 61, Application US/08461004A, Patent No. 6235283, GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 904136
INFORMATION FOR SEQ ID NO: 61:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 549 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 86.8
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein US-08-325-071-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & La
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy o
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   66 CVPTTC 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-461-004A-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX:
TELEX: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Gary L. Breton et al.
TITLE OF INVENTION:
TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC99-03PA
CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
NUMBER OF SEQ ID NOS: 8252
SEQ ID NO 4708
                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 33; DB 4; Length 159;
Pred. No. 1.7e+02;
0; Mismatches 1; Indels
                                                                                                                                Score 34, DB 4; Length 289;
Pred. No. 2e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPART: 0.09

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: Floppy disk

COMPUTER: The PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/325,071

FILING DATE: 14-OCT-1993

PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: COBON, Stewart Gary
APPLICANT: MOORE, Joanna Terry
APPLICANT: MILLADSEN, Law Anthony York
APPLICANT: WILLADSEN, Peter
APPLICANT: KEMP, David Harold
APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith No. 5587311man
TITLE OF INVENTION: Glycoprotein Of A Tick Gut
                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 4708, Application US/09328352
; Patent No. 6562958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 61, Application US/08325071 Patent No. 5587311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Acinetobacter baumannii
US-09-328-352-4708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: Foley & Lardner 3000 K Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86.8%;
                                                                                                                                     89.5%;
                                            TYPE: PRT
; ORGANISM: Myxococcus xanthus
US-09-902-540-12179
                                                                                                                                   Query Match 89.5
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 86.8
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CVPLAC 118
                                                                                                                                                                                                                                                                      229 CTPLTC 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTC 6
                                                                                                                                                                                                                            1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                 US-09-328-352-4708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
  SEQ ID NO 12179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-325-071-61
                         LENGTH: 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
```

Gaps

0

Gaps

ö

```
86.8%; Score 33; DB 4; Length 556; 83.3%; Pred. No. 5.2e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CUTY: Washii...

CUTY: Washii...

CUTY: B. 20007-510

COMPUTER: IS 10007-510

COMPUTER: IS POORY

COMPUTER: IS POORY

CONFUTER: IS POORY

APPLICATION NAMER: US 08/052,001

FILING DATE: 14-0CT-1993

FILING DATE: 17-MAY-1993

PRIOR APPLICATION NAMER: US 07/926,368

FILING DATE: 17-MAY-1993

PRIOR APPLICATION NAMER: US 07/926,368

FILING DATE: 06-0UL-1988

FILING DATE: 06-0UL-1988

FILING DATE: 06-0UL-1987

PRIOR APPLICATION NAMER: AU P14912

FILING DATE: 16-0CT-1997

PRIOR APPLICATION NAMER: AU P19126

FILING DATE: 27-NOV-1987

PRIOR APPLICATION NAMER: AU P19196

FILING DATE: 27-NOV-1987

PRIOR APPLICATION NAMER: AU P19196

FILING DATE: 27-NOV-1987

PRIOR APPLICATION NAMER: AU P19196

FILING DATE: 27-NOV-1986

PRIOR APPLICATION NAMER: 29-768

PRIOR APPLICATION NAMER: 29-768

FILING DATE: 27-NOV-1986

FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: COBON, Stewart Gary
APPLICANT: MOORE, Joanna Terry
APPLICANT: JOHNSON, Law Anthony York
APPLICANT: WILLADSEN, Peter
APPLICANT: KEMP, David Harold
APPLICANT: KEMP, David Harold
APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith No. 5587311man
TITLE OF INVENTION: Glycoprotein Of A Tick Gut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-325-071-65
; Sequence 65, Application US/08325071
; Patent No. 5587311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 71
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W.
                                           Query Match 86.8
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                            423 CVPLVC 428
                                                                                                                                                                                                                                 1 CVPLTC 6
                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-09-815-923-6
| Sequence 6, Application US/09815923
| Sequence 6, Application US/09815923
| Patent No. 6787642
| GENERAL INFORMATION:
| APPLICANT: Gill, Sarjeet S. |
| APPLICANT: The Regents of the University of California |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters as No. 6787642el |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters as No. 6787642el |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use Of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use of Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use OF Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use OF Insect Cell Membrane Transporters |
| TITLE OF INVENTION: Use OF Insect Cell Membrane Transporters |
| TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86.8%; Score 33; DB 3; Length 549;
83.3%; Pred. No. 5.2e+02;
                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 08/062,109
FILING DATE: 17 MAY-1993
PRIOR APPLICATION NUMBER: US 08/062,109
FILING DATE: 07-MCG-1992
PRIOR APPLICATION NUMBER: US 07/926,368
FILING DATE: 07-MCG-1992
PRIOR APPLICATION NUMBER: 07/242,196
FILING DATE: 06-JUL-1988
PRIOR APPLICATION NUMBER: PCT/AU87/00401
FILING DATE: 10-JUN-1987
PRIOR APPLICATION NUMBER: AU P14912
FILING DATE: 16-OCT-1987
PRIOR APPLICATION NUMBER: AU P14912
FILING DATE: 19-JUN-1987
PRIOR APPLICATION NUMBER: AU P12570
FILING DATE: 19-JUN-1987
PRIOR APPLICATION NUMBER: AU P19196
FILING DATE: 19-JUN-1987
PRIOR APPLICATION NUMBER: AU P19196
FILING DATE: 27-NOV-1986
ATTORNEY/AGENT INFORMATION:
APPLICATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 29,768
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: proline transporter US-09-815-923-6
APPLICATION NUMBER: US/08/461,004A FILING DATE: 04-JUN-1995
                                                                                                                                      ATION NUMBER: US 08/325,071
DATE: 19-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 904136
INFORMATION FOR SEQ ID NO: 61:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein
                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66 CVPTTC 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-461-004A-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
```

셤

Gaps

ð

```
86.8%; Score 33; DB 3; Length 620;
83.3%; Pred. No. 5.8e+02;
                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA

ZIP: 20007-5109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/325,071
PILING DATE: US/08/325,071
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/062,109
FILING DATE: US 08/062,109
FILING DATE: US 07/926,368
FILING DATE: US 07/926,368
FILING DATE: 07-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DCT/AU87/00401
FILING DATE: 27-NOV-1987
PRIOR APPLICATION NUMBER: AU PI4912
FILING DATE: 16-CCT-1987
PRIOR APPLICATION NUMBER: AU PI2570
APPLICATION NUMBER: AU PI2570
APPLICATION NUMBER: AU PI2570
APPLICATION NUMBER: AU PI2570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: KEMP, David Harold
APPLICANT: SRISKANTHA, Alagacone
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith No. 5587311man
TITLE OF INVENTION: DNA Encoding A Cell Membrane
TITLE OF INVENTION: Glycoprotein Of A Tick Gut
NUMBER OF SEQUENCES: 71
ADDRESSEE: Foley & Lardner
                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COBON, Stewart Gary
MOORE, Joanna Terry
JOHNSON, Law Anthony York
WILLADSEN, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 19-JUN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PH9196
FILING DATE: 27-NOV-1986
ATTORNEY/AGENT INCORMATION:
NAME: BENT, SLEEPHEN A.
REGISTRATION NUMBER: 29,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 56, Application US/08125071; Patent No. 5587311; GENERAL INFORMATION: APPLICANT: COBON, Stewart Gary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                            : 620 amino acids
amino acid
                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 83.3.
                         TELEX: 904136
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 620 amino acid
      202 672 5399
                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117 CVPTTC 122
                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTC 6
                                                                                                                                                                                                                                                      US-08-461-004A-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
US-08-325-071-56
      TELEFAX:
                                                                                                                                                            TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                             ·.
                                                                                                                                                                                             ö
                                                                                                                         Score 33; DB 1; Length 620;
Pred. No. 5.8e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: COBON, Stewart Gary
APPLICANT: COBON, Stewart Gary
APPLICANT: MOORE, Joanna Terry
APPLICANT: WILLADSEN, Law Anthony York
APPLICANT: WILLADSEN, Peter
APPLICANT: KEMP, David Harold
APPLICANT: KEMP, David Harold
APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith NO. 6235283man
TITLE OF INVENTION: DNA Encoding A Cell Membrane
TITLE OF INVENTION: DNA Encoding A Cell Membrane
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OCHERATION SYSTEM:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/461,004A
FILING DATE: US/08/30
FILING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 60042/152
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 27-NOV-1986
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION WIMBER: 29,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 65, Application US/08461004A
Patent No. 6235283
GENERAL INFORMATION:
APPLICANT: COBON, Stewart Gary
APPLICANT: MOORE, Joanna Terry
APPLICANT: JOHNSON, Law Anthony YC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                86.8%;
                                                                                                                            Query Match
Best Local Similarity 83.3
Matches 5, Conservative
; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-325-071-65
                                                                                                                                                                                                                                                                                                                   117 CVPTTC 122
                                                                                                                                                                                                                                                         1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
US-08-461-004A-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
```

ò 셤

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            86.8%; Score 33; DB 1; Length 650; 83.3%; Pred. No. 6e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: COBON, Stewart Gary
APPLICANT: COBON, Stewart Gary
APPLICANT: MICHOSE, Joanna Terry
APPLICANT: WILLIADEN, Peter
APPLICANT: WILLIADEN, Peter
APPLICANT: REMP, David Harold
APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith No. 5587311man
TITLE OF INVENTION: DNA Enceding A Cell Membrane
TITLE OF SEQUENCES: 71
CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY & Lardner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTY: WESTINGLOY, D.C.
COUNTY: WESTINGLOY, D.C.
ZIP: 20007-5109
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN RC-BOS/MS-DOS
SOFTWARE: PATENTIN RC-BOS/MS-DOS
SOFTWARE: PATENTIN RC-BOS/MS-DOS
SOFTWARE: PATENTIN DATA:
APPLICATION NUMBER: US/08/325,071
FILING DATE: 14-OCT-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/926,368
FILING DATE: 07-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/242,196
FILING DATE: 06-JUL-1988
PRIOR APPLICATION NUMBER: PCT/AU87/00401
FILING DATE: 27-NOV-1987
PRIOR APPLICATION NUMBER: AU FILING DATE: AU FILIN
                                                               29,768
ER: 60042/111 BIAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 63, Application US/08325071
Patent No. 5587311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 16-OCT-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PILING DATE: 19-JUN-1987
                                  NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 6004
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEFAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                                                                                                TELEX: 904136
INFORMATION FOR SEQ ID NO: 59
SEQUENCE CHARACTERISTICS:
LENGTH: 650 amino acids
TYPE: amino acid
TOPOLOGY: linear
      ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 83.5.
                                                                                                                                                                                                                                                                                                                                                                                                    ; MOLECULE TYPE: protein US-08-325-071-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 147 CVPTTC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-08-325-071-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                       86.8%; Score 33; DB 1; Length 650;
83.3%; Pred. No. 6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/325,071
FILING DATE: 14-OCT-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/926,368
FILING DATE: 07-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/242,196
FILING DATE: 07-AUG-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: BCT/AUB7/00401
FILING DATE: 10-NOW-1987
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: AU PI4912
FILING DATE: 19-JUN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PI4912
FILING DATE: 19-JUN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PI4916
FILING DATE: 19-JUN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PI4916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 59, Application US/08325071

Patent No. 5587311

GENERAL INFORMATION:

APPLICANT: COBON, Stewart Gary
APPLICANT: WILLADSEN, Law Anthony York

APPLICANT: WILLADSEN, Peter

APPLICANT: KEMP, David Harold
APPLICANT: KEMP, David Harold

APPLICANT: RIDING, George Alfred
APPLICANT: RIDING, George Alfred

APPLICANT: RIDING, Keith No. 5587311man

TITLE OF INVENTION: DNA Encoding A Cell Membrane;

TITLE OF INVENTION: Glycoprotein Of A Tick Gut

NUMBER OF SEQUENCES: 71

CORRESPONDENCE ADDRESS:
         60042/111 BIAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UMBER: AU PH9196
27-NOV-1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEE: Foley & Lardner: 3000 K Street, N.W. Washington, D.C.
REFERENCE/DOCKET NUMBER: 6(TELECHOME: 202 672 5300 TELECHOME: 202 672 5300 TELEFRAX: 202 672 5399
                                                                                                                        TELEX: 904136
INFORMATION FOR SEQ ID NO: 56:
SEQUENCE CHARACTERISTICS:
LENGTH: 650 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 83.3.
                                                                                                                                                                                                                                                                                                     , MOLECULE TYPE: protein US-08-325-071-56
                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147 CVPTTC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
STREET: 30
                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-08-325-071-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Wa
```

```
SEE: Foley & Lardner: 3000 K Street, N.W. Washington, D.C.
                                                                                                                                                                                                                             TELEX: 904136
INFORMATION FOR SEQ ID NO: 6 SEQUENCE CHARACTERISTICS:
LENGTH: 650 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 83...
S. Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 72
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & La
                                                                                                                                                                                                                                                                                                                                                                              , MOLECULE TYPE: protein US-08-325-071-67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147 CVPTTC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-461-004A-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                Score 33; DB 1; Length 650;
Pred. No. 6e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER SEADABLE FORM:
MEDIUM TYPE: Floppy
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SUSTAMRE: PAPLICATION DATA:
FILING DATE: 14-OCT-1993
PRIOR APPLICATION DATA: US 08/062,109
FILING DATE: 17-MAY-1993
PRIOR APPLICATION DATA: US 07/926,368
FILING DATE: 07-AUG-1992
PRIOR APPLICATION DATA: OF JUL-1988
PRIOR APPLICATION DATA: TO NOV-1987
PRIOR APPLICATION DATA: POT/AU87/00401
PRIOR APPLICATION DATA: POT/AU87/00401
PRIOR APPLICATION DATA: PRIOR APPLICATION NUMBER: AND PRIOR APPLICATION NUMBER: AND PRIOR APPLICATION NUMBER: AND PRIOR APPLICATION DATA: 16-OCT-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: AU PH9196
FILING DATE: 27-NOV-1986
ATTORNEY/AGENT INPORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 6042/111 BIAU
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5399
TELEFAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B: Foley & Lardner
3000 K Street, N.W.
                                                                                                                                                                                            TELEX: 904136
INFORMATION FOR SEQ ID NO: 63:
SEQUENCE CHARACTERISTICS:
LENGTH: 650 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                    86.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 83.3
Matches 5, Conservative
                                                                                                                                                                                                                                                                                                                   , MOLECULE TYPE: protein US-08-325-071-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147 CVPTTC 152
                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-325-071-67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

```
APPLICATION NATES.

PRICA APPLICATION NATES.

PRICA APPLICATION NATES.

PRICA APPLICATION NATES.

PRICA APPLICATION NATES.

AND PRICATION NATES.

AND PRICATION NATES.

AND PRICATION NATES.

PRESENCE/COCKET NATES.

PRESENCE
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86.8%; Score 33; DB 3; Length 650;
83.3%; Pred. No. 6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 2000-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IE Prompatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: DNA ELOCATION A Cell Membrar TITLE OF INVENTION: Glycoprotein Of A Tick Gut NUMBER OF SEQUENCES: 71
CORRESSPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83.3%; Pred ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: COBON, Stewart Gary
APPLICANT: MOORE, Joanna Terry
APPLICANT: MOORE, Law Anthony York
APPLICANT: WILLADSEN, Peter
APPLICANT: KEMP, David Harold
APPLICANT: SRISKANTHA, Alagacone
APPLICANT: RIDING, George Alfred
APPLICANT: RAND, Keith No. 6235283man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/461,004A
FILING DATE: 04-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60042/152
                                                                                                                                                                    PCT/AU87/00401
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/926,368
FILING DATE: 07-40G-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/242,196
FILING DATE: 06-JUL-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/AUB7/0040
FILING DATE: 27-NOV-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU P14912
FILING DATE: 16-OCT-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU P12570
FILING DATE: 19-JUN-1987
PRIOR APPLICATION NUMBER: AU P19196
FILING DATE: 17-NOV-1986
ATPORNEY/ABONT INFORMATION:
NAME: BENT SLEPHON A.
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 29,768
TELEEPHONE: 202 672 5399
TELEFRAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 63, Application US/08461004A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : 650 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 904136
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147 CVPTTC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. 6235283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-461-004A-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
US-08-461-004A-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86.8%; Score 33; DB 3; Length 650; 83.3%; Pred. No. 6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 59, Application US/08461004A

Fatent No. 6235283
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: COBON, Stewart Gary
APPLICANT: COBON, Law Anthony York
APPLICANT: WILLADSEN, Law Anthony York
APPLICANT: WILLADSEN, David Harold
APPLICANT: KEMP, David Harold
APPLICANT: RESTRANTHA, Alagacone
APPLICANT: RESTRANTHA, Alagacone
APPLICANT: RAND, Keith No. 6235283man
TITLE OF INVENTION: DNA Encoding A Cell Membrane
TITLE OF INVENTION: Glycoprotein Of A Tick Gut
NUMBER OF SEQUENCES: 71
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: Mashington, D.C.
COUNTRY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMFUTER: IBM PC compatible

COMFUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/461,004A

FILING DATE: 04-JUN-1995

PRIOR APPLICATION NUMBER: US

PRILING APPLICATION NUMBER: US

FILING DATE: 19-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/AU87/00401
FILING DATE: 27-NOV-1987
                                                                                                                                                                                                                                                                                                                                                      60042/152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/062,109
FILING DATE: 17-MAY-1993
                                                                PFLING DATE: 2.7 NOV-1987

PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU P14912
FILING DATE: 16-OCT-1987

PRIOR APPLICATION NUMBER: AU P12570
FILING DATE: 19-JUN-1987

PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU P9196
FILING DATE: 27-NOV-1986
ATTONEY/ASENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768

REGISTRATION NUMBER: 29,768

REGISTRATION NUMBER: 29,768

REGISTRATION NUMBER: 29,768

TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPRAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 202 672 5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 56:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 650 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 83.3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , MOLECULE TYPE: protein US-08-461-004A-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147 CVPTŤC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-461-004A-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: War
```

ð 셤

```
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/325,071
PILING DATE: 19-OCT-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/062,109
PILING DATE: 17-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/926,368
FILING DATE: 07-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/242,196
FILING DATE: 06-UUL-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 27-NOV-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 16-OCT-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 16-OCT-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 27-NOV-1986
FILING DATE: 19-UN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 29,768
FILING DATE: 27-NOV-1986
ATTORNEY/AGENT INFORMATION:
BEGISTRATION NUMBER: 29,768
REFERENCE/OCKET NUMBER: 29,768
REFERENCE/OCKET NUMBER: 29,768
REFERENCE/OCKET NUMBER: 20,768
REG
```

0; Gaps Query Match

86.8%; Score 33; DB 3; Length 650;
Best Local Similarity 83.3%; Pred. No. 6e+02;
Matches 5; Conservative 0; Mismatches 1; Indels ò

ö

Search completed: April 1, 2005, 09:36:18 Job time: 14.3151 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

model
3
using
search,
protein
•
protein
Ö

April 1, 2005, 06:17:29 ; Search time 14.5205 Seconds (without alignments) 66.262 Million cell updates/sec Run on:

US-09-761-636A-13 56

1 CISVPLSVPC 10 Perfect score: Sequence:

Title:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 segs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	hypothetical prote		IMP dehydrogenase	IMP dehydrogenase	hypothetical prote	hypothetical prote	sulfated surface g	Ly6 homolog RK3 pr	hypothetical prote	conserved hypothet	probable amino aci	probable steroid 2	hypothetical prote			O	transcription fact	masC protein - Myc	probable aminotran	omega-3 fatty acid	origin recognition				probable acyl-CoA		probable single-st		hypothetical prote
ß	T44555	G82599	F86298	JC4999	D71864	F82521	A33647	D45835	B86781	G75515	G83136	H96759	S46742	T08827	F72751	JC7593	149529	S72711	A83171	T15039	T50982	D75437	A70877	B86926	D87063	B70668	D71289	650	G72115
DB	. 2	~	N	н	~	~	ď	~	N	~	~	~	N	~	N	~	N	~	~	~	~	~	2	7	~	~	N	~	7
Length	85	148	502	503	616	83	485	134	207	256	496	512	581	699	100	255	323	372	382	438	468	503	\sim	579	579	580	0	759	
* Query Match	69.6	9.69	67.9	6.79	6.79	66.1	9	4	64.3	64.3	64.3	•	64.3		62.5			•		62.5	ď	'n		٠		62.5	ď	ď.	62.5
	-																												
Score	39	39	38	38	38	37	37	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Result No.		7	ю	4	S	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	53

hypothetical prote agitoxin 3 - scorp acetate kinase (Ac	hypothetical prote probable PTS syste	regulatory procein hypothetical prote probable secreted	Appunentar proce gene Brn-3b protei transcription fact protein C (activat	hypothetical prote hypothetical prote propanediol dehydr
B97852 C54471 D97718	H71023 AD0966 S06314	E33538 F89914 T44873	AD2559 138502 148291 KXHU	C95349 H85135 A56111
000	0000	9000	7 7 7 7	000
1162 38 77	156 249 250	328 387	410 440 461	502 527 554
62.5 60.7 60.7	60.7 60.7 60.7	60.7	60.7 60.7 60.7	60.7 60.7 60.7
0 0 0 4 4 5	ው ው ው ፡ ቁ ቁ ቁ ቁ ቁ	2 W W C	1 61 61 61 1 41 41 41	8 8 8 4 4 4
3 3 3 3 2 3	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	3 8 8 6 2 8 9 8	2 4 4 4 2 0 11 5	4 4 4 6 4 6

ALIGNMENTS

RESULT 1 74455	
hypothetical protein PA0631 [imported] - Pseudomonas aeruginosa (strain PA01)	train PAO1)
C;Species: Pseudomonas aeruginosa	
C,Date: 31-Jan-2000 #sequence revision 31-Jan-2000 #text_change 09-Jul-2004	-Jul-2004
C;Accession: T44555; E83568	
R;Nakayama, K.; Takashima, K.; Ishihara, H.; Shinomiya, T.; Kageyama, M.; Kanaya, S.; Ohr	na, M.; Kanaya, S.; Ohr
submitted to the EMBL Data Library, August 1999	
A; Description: Genetic relationship between bacteriocins and bacteriophages.	riophages.
A;Reference number: Z22790	
A; Accession: T44555	
A;Status: preliminary; translated from GB/EMBL/DDBJ	
A; Molecule type: DNA	
A;Residues: 1-85 <nak></nak>	

Gaps ö Score 39; DB 2; Length 85; Pred. No. 6.1; 2; Mismatches 1; Indels 69.64; Query Match 69.6 Best Local Similarity 66.7 Matches 6; Conservative

ö

: |||:||| 27 VEVPLAVPC 35 2 ISVPLSVPC 10 ð g

RESULT 2

Wypothetical protein XP2118 [imported] - Xylella fastidiosa (strain 9a5c)
C;Species: Xylella fastidiosa
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
C;Accession: G82599
R;Anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequence Nature 406, 151-157, 2000
A;Fitle: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Reference number: A82515; MUD: 20365717; PMID: 10910347
A;Reference complete list of authors see reference number A59328 below
A;Accession: G82599

```
A;Introduction:
A;Descriptor:
C;Complex: homotetramer
C;Function:

R;Collart, F.R.; Osipiuk, J.; Trent, J.; Olsen, G.J.; Huberman, E.
Gene 174, 217-220, 1996
A;Title: Cloning and characterization of the gene encoding IMP dehydrogenase from Arabidc
A;Reference number: JC4999; MUID:97045815; PMID:8890737
                                                                                                                                                                                                                                                                                    A;Molecule type: DNA
A;Residues: 1-503 <COL>
A;Cross-references: UNIPROT:P47996; GB:L34684; NID:g1100062; PIDN:AAB41940.1; PID:g110006
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;172-220/Domain: CBS homology <CBS2>
F;221-465/Domain: IMP dehydrogenase catalytic homology <IMP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67.9%; Score 38; DB
85.7%; Pred. No. 50;
:ive 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;322/Active site: Cys #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253 CLSNPLSVP 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 VPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VPLSIPC 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A,Status: preliminary
A,Molecule type: DNA
A,Residues: 1-616 <ARN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                  A; Accession: JC4999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: jhp0985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Gene: impdh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genetics;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IMP dehydrogenase (EC 1.1.1.205) - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Yi, Liu, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Sowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, A;Attle: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MulD:21016719; PMID:11130712
A;Accession: P86298
                                                                                                                                                                                                            A; Experimental source: strain 935c
R; Simpson, A.J.G; Reinach, F.C; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; A
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H
as-Neto, E.; Docera, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.
submitted to GenBank, June 2000
A; Authors: Perreira, W.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohm
J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuranee, E.E.; Laigr
A, Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, B.C.; Miyaki, C.Y.;
F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.P.
R.G.; Nunes, V.; Rosa, A.J. de M.; de Nesa Jr., V.E.; de Salveira, R.C.; Santelli, R.V.; Sawasak
A; Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.G.; A.C.R.; A.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Molecule type: DNA,
M. Residues: 1-502 <STO>
A,Residues: 1-502 <STO>
A,CTOSS-references: UNIPROT:Q9SA34; GB:AE005172; NID:g4966356; PIDN:AAD34687.1; GSPDB:GN
C,Genetics:
A,Map position:
C,Superfamily: inosine-5'-monophosphate dehydrogenase; CBS homology; IMP dehydrogenase a
C,Superfamily: inosine-5'-monophosphate dehydrogenase; CBS homology; IMP dehydrogenase a
C,Keywords: GMP biosynthesis; NAD; oxidoreductase
                                                                                                                                                                                      A,Cross-references: UNIPROT:Q9PBM2; GB:AE004026; GB:AE003849; NID:99107228; PIDN:AAF8494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
JO4999
LIMP dehydrogenase (EC 1.1.1.205) - Arabidopsis thaliana
CiSpecies: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: JC4999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 502;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'Match 67.9%; Score 38; DB 2; Local Similarity 85.7%; Pred. No. 50; es 6; Conservative 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39; DB 2
Pred. No. 10;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69.6%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 50.0
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAVPMNAPC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 VPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VPLSIPC 55
                                                                                              A; Molecule type: DNA
A; Residues: 1-148 <SIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A, Contents: annotation C, Genetics:
A, Gene: XF2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
```

Gaps

ö

Indels

DB 1; Length 503;

```
hypothetical protein jhp0985 - Helicobacter pylori (strain J99)
C;Species: Helicobacter pylori
A;Species: Helicobacter pylori
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Date: 12-Feb-1999 #sequence_revision 0.T.; King, B.L.; Brown, E.D.; Doig, P.C.; Smith, D.R.;
I ves, C.; Gibson, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.E.; Vovis, G.F.; J
Nature 397, 176-180, 1999
A;Title: Genomic sequence comparison of two unrelated isolates of the human gastric paths
A;Reference number: A71800; MUID:99120557; PMID:9923682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cispecies: Xylella fastidiosa Cispecies: Xylella fastidiosa Co-Aug-2000 #text_change 09-Jul-2004 Cispecies: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004 Cispecies in P82221 Rianonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequence Nature 406, 151-157, 2000 Ajtitle: The genome sequence of the plant pathogen Xylella fastidiosa. Ajtitle: The genome sequence of the plant pathogen Xylella fastidiosa. Ajtitle: The genome sequence of the plant pathogen Xylella fastidiosa. Ajtocesion: R82521 Ajtocession: F82521 Ajtatus: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A, Cross-references: UNIPROT: Q9ZKF3; GB: AE001527; GB: AE001439; NID: g4155558; PIDN: AAD06568
A, Experimental source: strain J99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein XF2736 [imported] - Xylella fastidiosa (strain 9a5c)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67.9%; Score 38; DB 2; Length 616;
77.8%; Pred. No. 61;
iive 1; Mismatches 1; Indels
```

m

ö

A; Gene: XF2736 Query Match

셤

ઠે 원

```
Conserved hypothetical protein - Deinococcus radiodurans (strain R1)
C;Species: Deinococcus radiodurans
C;Species: Deinococcus radiodurans
C;Species: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: G75515
R;White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, J.D.; Dodson, R.J.; F.White, O.; Eisen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback, T.; Zalewski, C.; Ma)
S; Smith, H.O.; Venter, J.C.; Fraser, C.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein ymhc [imported] - Lactococcus lactis subsp. lactis (strain IL1403) C;Species: Lactococcus lactis subsp. lactis C;Accession: B86781 R;Bolotin, A.; Wincker, P.; Mauger, S.; Jaillon, O.; Malarme, K.; Weissenbach, J.; Ehrlic Genome Res. II, 731-753, 2001 A;Ricker The complete genome sequence of the lactic acid bacterium Lactococcus lactis ssg A;Reference number: A86625; MUID:21235186; PMID:11337471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:O9RX44; GB:AE001906; GB:AE000513; NID:g6458151; PIDN:AAF10056
A;Experimental source: strain R1
A;Residues: 2-134 <FR2>
A;Cross-references: GB:M30691; NID:g205251; PIDN:AAA41548.1; PID:g205252
A;Cross-references: GB:M30691; NID:g205251; PIDN:AAA41548.1; PID:g205252
A;Experimental source: clone RXII
C;Superfamily: Ly-6 antigen; Ly-6 homology
C;Superfamily: Ly-6 artigen; Ly-6 homology
C;Keywords: blocked carboxyl end; glycoprotein; lipoprotein; phosphatidylinositol linkage
F;1-26/Domain: signal sequence #status predicted <NIC>
F;1-26/Domain: agnal sequence #status predicted <NIC>
F;10-134/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;106-134/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;106-134/Domain: carboxyl-terminal propeptide matdated carboxyl end (Asn) (in mature form)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: UNIPROT:09CG60; GB:AE005176; PID:g12724223; PIDN:AAK05348.1; GSPDB:Gr
A;Experimental source: strain IL1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Title: Genome sequence of the radioresistant bacterium Deinococcus radiodurans A,Reference number: A75250; MUID:20036896; PMID:10567266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                        2; Length 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2; Length 207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 256;
                                                                                                                                                                                                                                                                                                                                                                                       3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
7
                                                                                                                                                                                                                                                                                                                     Score 36; DB 2
Pred. No. 31;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 36; DB 2
Pred. No. 48;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 36; DB 2
Pred. No. 58;
1; Mismatches
                                                                                                                                                                                                                                                                                                                     64.3%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64.3%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 55.6
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                       6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32 CIEVPLNANC 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||::|| :|
128 CINLPLQIP 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A, Accession: B86781
A, Status: preliminary
A, Molecule type: DNA
A, Residues: 1-207 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A Status: preliminary
A Molecule type: DNA
A Residues: 1-256 <WHI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: G75515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C, Genetics:
A, Gene: ymhC
                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                       Ajcross-references: UNIPROT:09P994; GB:AE004080; GB:AE003849; NID:99107971; PIDN:AAF8552 AjExperimental source: strain 9a5c
Risperimental source: strain 9a5c
Risperimental source: Strain 9a5c
Risperimental source: Strain 9a5c
Briones, M.B.C.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.B.; Camargo, L.B.A.; Carraro, D.M.; Carrer, H. submitted to GenBank, June 2000.
A.Authors: Farreira, V.C.A.; Ferro, J.A.; Fragina, A.P.; Franca, S.C.; Franco, M.C.; Frohm J.D.; Junqueira, M.L.; Kemper, B.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, B.E.; Laigr chado, M.A.; Madeira, A.M.B.N.; Macika, M.A.; Madeira, A.M.B.N.; Matchors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Marques, M.V.; Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, B.C.; Miyaki, C.Y.; F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A. Rodrigues, V.; Rosa, A.J.; de Silve, A.M.; Silve, T., Wall, da Silve, M.H.; Vallada, H.; Vallada, H.; Vallada, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Z.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A33647
sulfaced surface glycoprotein 185 - Volvox carteri
C;Species: Volvox carteri
C;Species: Volvox carteri
C;Date: 11-Apr-1990 #sequence_revision 11-Apr-1990 #text_change 09-Jul-2004
C;Accession: A33647
C;Accession: A33647
S; ErLl, H; Mengele, R; Wenzl, S; Engel, J; Sumper, M.
J. Call Biol. 109, 3493-3501, 1889
A;Title: The extracellular matrix of Volvox carteri: molecular structure of the cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
1945835
Ly6 homolog RK3 precursor - rat
C;Species: Rattue norvegicus (Norway rat)
C;Species: Rattue norvegicus (Norway rat)
C;Date: 03-Mar-1994 #sequence_revision 03-Mar-1994 #text_change 09-Jul-2004
C;Accession: 195835; C5835
R;Friedman, S:? Palfree, R.G.E.; Sirlin, S.; Haemmerling, U.
Immunogenetics 31, 104-111, 1990
A;Title: Analysis of three distinct Ly6-A-related cDNA sequences isolated from rat kidne
A;Reference number: A5835; MUID:90152758; PMID:2154400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Molecule type: mRNA
A;Residues: 1-134 <FRI>
A;Cross-references: UNIPROT:Q63318; GB:M30690; NID:g205249; PIDN:AAA41547.1; PID:g205256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-485 <ERT>
A;Cross-references: UNIPROT:P21997; GB:X51616; NID:g21999; PIDN:CAA35953.1; PID:g1405821
C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 37; DB 2;
Pred. No. 14;
1; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 37; DB 2
Pred. No. 72;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66.1%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A, Experimental source: clone RK3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | :|||: ||
CQTVPLTEPC 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A, Reference number: A59328
A, Contents: annotation
C, Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19 VSAPLRVPC 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ISVPLSVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 6; Conserv
      A; Molecule type: DNA
A; Residues: 1-89 <SIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: C45835
A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: A33647
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Molecule type: mRNA
```

ö

R

RESULT 11

원

ð

```
hypothetical protein APE0003 - Aeropyrum pernix (strain K1)
C;Species: Aeropyrum pernix
C;Species: Aeropyrum pernix
C;Accession: F72751
R;Kawarabayasi, Y; Hino, Y; Horikawa, H; Yamazaki, S; Haikawa, Y; Jin-no, K; Takahɛ
awa, H; Takamiya, M; Masuda, S; Funahashi, T; Tanaka, T; Kudoh, Y; Yamazaki, J; K,
DNA Res. 6, 83-101, 1999
                                                                                                                                                                                                                                                                                                                                   A;Accession: S46742
A;Molecule type: DNA
A;Residues: 1-581 < DUZ>
A;Cross-references: UNIPROT:P38767; EMBL:U00062; NID:g488162; PIDN:AAB68911.1; PID:g48817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Homo sapiens (man)
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 09-Jul-2004
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 09-Jul-2004
C;Accession: T0820; Tayebi, N.; Martin, B.M.; Ginns, E.I.; Sidransky, E.
Genome Res. 7, 1020-1026, 1997
A;Filte: Identification of three additional genes contiguous to the glucocerebrosidase lc
A;Reference number: Z16482; MUID:97474796; PMID:9331372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Residues: 1-669 <WIN>
A;Cross-references: UNIPROT:P81408; EMBL:AF023268; NID:g2564910; PIDN:AAC51822.1; PID:g2:
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aeropyrn A,Reference number: A72450; MUID:99310339; PMID:10382966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Map position: 1
A;Introns: 75/3; 94/3; 131/3; 171/3; 207/3; 266/2; 299/3; 323/1; 505/1; 528/1; 612/3
                                                     hypothetical protein YHR032w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein H8179.15
C;Species: Saccharomyces cerevisiae
C;Date: 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 09-Jul-2004
C;Accession: S46742
R;Du, Z.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 669;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                       submitted to the EMBL Data Library, May 1994
A;Description: The sequence of S. cerevisiae cosmid 8179.
A;Reference number: S46732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64.3%; Score 36; DB 2; I
llarity 70.0%; Pred. No. 1.5e+02;
Conservative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 36; DB 2; I
Pred. No. 1.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: translated from GB/EMBL/DDBJA;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hypothetical protein cotel - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64.3%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A, Map position: 8R
C, Keywords: transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Cross-references: SGD:S0001074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best_Local Similarity 50.0
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139 CPSVPLLRPC 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
7; Conserv?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |:|:|:|
564 CVSIPVSSGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLSVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-100 <KAW>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: F72751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Gene: cote1
                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Genetics;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                C;Accession: G83136
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Bradan, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, Jature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho A;Reference number: A82950; MUID:20437337; PMID:10984043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             probable steroid 22-alpha-hydroxylase T9124.44 [imported] - Arabidopsis thaliana (Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Accession: H96759
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Anthore, N.F.; Hudhes, B.; Huizar, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Anthore: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: H96759
A;Status: preliminary
A;Molecule type: DNA
A;Rosidues: 1-512 <STO>
A;Cross_references: UNIPROT:Q9FX29; GB:AE005173; NID:g11120803; PIDN:AAG30983.1; GSPDB:G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cross-references: UNIPROT:Q9HWV6; GB:AE004823; GB:AE004091; NID:g9950265; PIDN:AAG0745
                                                                                                                                                                                                           probable amino acid permease PA4072 [imported] - Pseudomonas aeruginosa (strain PAO1)
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Map position: 1
C;Superfamily: Synechocystis cytochrome P450 slr0574; cytochrome P450 homology
C;Keywords: heme; iron; metalloprotein
F;455/Binding site: heme iron (Cys) (axial ligand) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 36; DB 2; Length 496;
Pred. No. 1.1e+02;
Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 512;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64.3%; Score 36; DB 2; Length 512
55.6%; Pred. No. 1.1e+02;
ive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A, Experimental source: strain PAO1
C, Genetics:
A, Gene: PA4072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64.3%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 50.0
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CIAVAAAIPC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |:|||:|
244 CLSVPIDLP 252
CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLSVPC 10
                                                         4 CVPAPRSAPC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Local 5; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: G83136
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-496 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     345
```

ð g ö

셤

ò

```
A;Cross-references: UNIPROT:09YG98, DDBJ:AP000058, NID:g5103388; PIDN:BAA78912.1, PID:g5
A;Experimental source: strain Kl
C;Genetics:
A;Gene: APE0003
C;Superfamily: Aeropyrum pernix hypothetical protein APE0003
                                                                                                                                                                                                                      Query Match
62.5%; Score 35; DB 2; Length 100;
Best Local Similarity 71.4%; Pred. No. 35;
Matches 5; Conservative 2; Mismatches 0; Indels
```

; 0

0; Gaps

Search completed: April 1, 2005, 09:33:29 Job time : 15.5205 secs

4 VPLSVPC 10 :||:||| 57 IPLTVPC 63

8 &

THIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 03:33:32 ; Search time 61.2329 Seconds (without alignments) 83.628 Million cell updates/sec Run on:

US-09-761-636A-13 56

1 CISVPLSVPC 10 Perfect score: Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

1612378 seqs, 512079187 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		Description	1		Q914y0 streptomyce					Q8tgp8 saccharomyc							~	•			Q9p9y4 xylella fas	Q6cfg3 yarrowia li	Q8bwa6 mus musculu	Q8n7t2 homo sapien		_					Q9va44 drosophila	Q7p304 fusobacteri	P51986 chlorohydra
SUMMAKIES		, QI	MANC PIRSP	MANB PIRSP			Q9S564		Q89893	Q8TGP8	Q6C595	IMH2_ARATH	IMH1_ARATH	Q8L8 <u>U</u> 2	Q89D16	ADEC_LACPL	Y396 HELPJ	Q7R1J7	Oecgv5	_	_	_		_		_	_	_	_	Q9LGY9	_	_	CG2A_CHLVR
		ength DB	569 1	571 1		85 2			620 2	144 2	402 2	502 1	503 1	503 2	528 2	563 1	616 1	630 2	982 2			_	129 2		155 2							'n	420 1
d	Query	Match Length	1	75.0	71.4	9.69	9.69	9.69	9.69	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	66.1	66.1	66.1	66.1	66.1	9	9	66.1	9	66.1	66.1	66.1	66.1	66.1
		Score		42	40	39	39		39	38	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37	37	37	37	37	37	37	37	37
	Result	No.		7	m	4	ហ	9	7	ω	σ	10	11	12	13	14	15	16	17	18	19	20	21		23	24	25	56	27		29		31

64115 MW;

trypanosoma leishmania volvox cart oryza sativ anopheles g anopheles g trypanosoma trhodopirell bacteroides homo sapien rattus norv rattus norv lactococcus
06qta0 Q68pg1 P21997 Q9471 Q7401b8 Q908871 Q741b8 Q908871 Q741b8 Q908871 Q63318 Q90960
Q6QTA0 Q6SPG1 SSGP_VOLCA Q9AY75 Q7Q11 Q7QLB8 Q9NRV1 Q14634 Q14634 Q78EE7 Q63318 Q9CG60
000000000000000
7444 7444 7520 7520 7520 7520 7520 7520 7520 7520
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6

ALIGNMENTS

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                             "Evidence that the Piromyces gene family encoding endo-1,4-mannanases arose through gene duplication.";
FEMS Mirozbiol. Lett. 141:183-188(1996).
-!- CATALYTIC ACTIVITY: Random hydrolysis of 1,4-beta-D-mannosidic linkages in mannans, galactomannans, glucomannans, and
                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=56313314; PubMed=8768520; DOI=10.1016/0378-1097(96)00219-4;
Millward-Sadler S.J., Hall J., Black G.W., Hazlewood G.P.,
                                        01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Mannan endo-1,4-beta-mannosidase C precursor (EC 3.2.1.78) (Beta-mannanase C) (1,4-beta-D-mannan mannanohydrolase C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Potential.
Mannan endo-1,4-beta-mannosidase C.
2 X 39 AA approximate repeats.
                                                                                                                                                                                                                                                                                                                                                                            galactoglucomannans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00739; GLHYDRLASE26.
Glycosidase; Hydrolase; Multigene family; Repeat; Signal.
SIGNAL 1 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Poly-Asn.
Poly-Asn.
19277764E18328B5 CRC64;
                                                                                                                                                         Piromyces sp.
Eukaryota; Fungi; Chytridiomycota; Neocallimasticales;
Neocallimasticaceae; Piromyces.
                                569 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL, X97520; CAA66134.1; -.
InterPro; IPR005084; CBM 6.
InterPro; IPR0050883; DocKerin CBD 5.
InterPro; IPR009034; DocKering CDD.
InterPro; IPR008979; Gal bind like.
InterPro; IPR00805; Glyco_hydro_26.
Pfam; PF02013; CBM_10; 2.
Pfam; PF02156; Glyco_hydro_26; 1.
                                 PRT;
                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      531
473
480
569 AA;
                                                                                                                                                                                                      NCBI_TaxID=45796;
                                                                                                                                                                                                                                                                                   Gilbert H.J.;
                                 PIRSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
DOMAIN
REPEAT
REPEAT
                                MANC PI
P55298;
RESULT 1
MANC_PIRSP
```

109 AA

```
STRAIN=TU 2353;

MEDLINE=21225632; PubMed=11325225; DOI=10.1021/np010007+;

Rafanan E.R. Jr., Le.L., Zhao L., Decker H., Shen B.;

"Cloning, sequencing, and heterologous expression of the elmGHIJ genes involved in the biosynthesis of the polyketide antibiotic elloramycin from Streptomyces ollyvaceus Tu2353.";

J. Nat. Prod. 64:444.449(2001).

EMBL; AF26463; AAF73051.1;

HSSP; Q53908; LLQ9

GO; GO:0005737; C:cytoplasm; IEA.

GO; GO:0005737; P:antibiotic biosynthesis; IEA.
                                                                                                                                                                                                                                        Bacteria; Actinobacteria, Actinobacteridae; Actinomycetales; Streptomycineae; Streptomyces.
NCBI_TaxID=47716;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109 AA; 12304 MW; E65F4010C7D4B30B CRC64;
                                                                                                          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR007138; ABM.
InterPro; IPR011008; Dimer_A_B_barrel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71.4%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 77...
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                 PRELIMINARY;
                                                                                                          01-OCT-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2004 (TrEMBLrel.
Hypothetical protein.
                                                                                                                                                                                                                      Streptomyces olivaceus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF03992; ABM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90 IATPLSVPC 98
                                                                                                                                                                               rcm F1 monooxygenase.
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monooxygenase.
SEQUENCE 109
                                                                                                                                                                                                  Name=elmH;
                                                                   Q9L4Y0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        932260
                      RESULT 3
Q9L4Y0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
Q9S556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SO DRANGE SERVICE SERV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Evidence that the Piromyces gene family encoding endo-1,4-mannanases arose through gene duplication.";
FEMS Microbiol. Lett. 141:183-188(1996).
-!- CAFALYTIC ACTIVITY: Random hydrolysis of 1,4-beta-D-mannosidic linkages in mannans, galactomannans, and galactoglucomannans.
-!- SIMILARITY: Belongs to the glycosyl hydrolase 26 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=96313314; PubMed=8768520; DOI=10.1016/0378-1097(96)00219-4; Millward-Sadler S.J., Hall J., Black G.W., Hazlewood G.P.,
                                                                                                                                                                                                                                                                                                                           01-OCT-1996 (Rel. 34, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Mannan endo-1,4-beta-mannosidase B precursor (BC 3.2.1.78) (Beta-mannanase B) (1,4-beta-D-mannan mannanohydrolase B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    m.
                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mannan endo-1,4-beta-mannosidase
2 X 39 AA approximate repeats.
  DB 1; Length 569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 571;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR005084; CBM 6.
InterPro; IPR009034; Dockering CDD.
InterPro; IPR008034; Dockering CDD.
InterPro; IPR008089; Jockerin CBD 5.
InterPro; IPR008089; Gal bind like.
InterPro; IPR00805; Glyco hydro_26.
Pfam; PF02013; CBM 10; 2.
Pfam; PF03125; CBM 6; 1.
Pfam; PF02156; Glyco hydro_26; 1.
PR00739; GLHYDRLASE26.
Glycosidase; Hydrolase; Multigene family; Repeat; Signal.
                                                                 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Poly-Asn.
B13E44581FAA9DAA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Fungi, Chytridiomycota, Neocallimasticales,
Neocallimasticaceae, Piromyces,
NCBI_TaxID=45796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 42; DB 1;
Pred. No. 57;
                    Score 42; DB 1
Pred. No. 57;
1; Mismatches
                                                                                                                                                                                                                                                                 571 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Poly-Asn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64397 MW;
                                                                                                                                                                                                                                                                                                       01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last seq
                      75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X97408; CAA66061.1;
Query Match
Best Local Similarity 60.0
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                       490 CFSIPLGYPC 499
                                                                                                          1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   571 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gilbert H.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Piromyces sp
                                                                                                                                                                                                                    RESULT 2
MANB_PIRSP
ID _MANB_PIRSP
AC P55297;
                                                                                                                                                                                                                                                                                                                                                                                                                   Name=MANB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                  g
                                                                                                                                                                                                                                                                 ð
                                                                                                            ò
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=PML14;
MEDLINE=20521925; PubMed=11069649;
Nakayama K., Takashima K., Ishihara H., Shinomiya T., Kageyama M.,
Nakayama S., Ohnishi M., Murata T., Mori H., Hayashi T.;
Kanaya S., Ohnishi M., Murata T., Mori H., Hayashi T.;
"The R-type pyocin of Pseudomonas aeruginosa is related to P2 phage, and the F-type is related to lambda phage.";
Mol. Microbiol. 38-213-231(2000).
EMBL; AB030826; BAA83139.1; -.
Hypothetical protein.
SEQUENCE 85 AA; 9252 MW, 472269231FCC6355 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Pseudomonadaceae; Pseudomonas.
                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
Score 40, DB 2; Length 109;
Pred. No. 24;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 39; DB 2; Length 85;
Pred. No. 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Indels
                                                                                                                                                                                                                                                                                                         13, Created)
13, Last sequence update)
26, Last annotation update)
                                                                                                                                                                                                                                                                85 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

| |:|| || CFSIPLGYPC 501

492

a a

```
EMBL; AE004026; AAF84917.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1996 (TrEMBLrel. 01,
01-NOV-1996 (TrEMBLrel. 01,
25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 50.v.
Best Local Si Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 CCAVPMNAPC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-U1102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=DR2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          089893;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            089893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                089893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DDT TDD DDT DD
         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN-ATCC 15692 / PAO1;
MEDLINE=20431337; Pubmed=10984043; DOI=10.1038/35023079;
Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warrener P., Stover C.K., Pham X.-Q.T., Hufnagle W.O., Kowalik D.J., Lagrou M., Garber R.L., Goltry L., Tolentino E., Westbrock-Wadman S., Yuan Y., Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M., Smith K.A., Spencer D.H., Wong G.K.-S., Wu Z., Paulesen I.T., Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olson M.V.; "Complete genome sequence of Pseudomonas aeruginosa PAO1, an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=PAO1, and SLM6;
MEDLINE=20521925; PubMed=11069649;
Nakayama K., Takashima K., Ishihara H., Shinomiya T., Kageyama M.,
Kanaya S., Ohnishi M., Murata T., Mori H., Hayashi T.;
"The R-type pyosin of Pseudomonas aeruginosa is related to P2 phage, and the F-type is related to lambda phage.";
Mol. Microbiol. 38:213-231(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=20365717; PubMed=10910347; DOI=10.1038/35018003;
Simpson A.J.G., Reinach F.C., Arruda P., Abreu F.A., Acencio M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 39, DB 2; Length 85;
Pred. No. 28;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature 406:959-964 (2000).

EMBL, AB030825; BAA83170.1; -.

EMBL, AB045308; BAA9749.1; -.

EMBL, AE004498; AG04020.1; -.

Complete proteome; Hypothetical protein.

SEQUENCE 85 AA; 9222 MW; F2267D9C542C7F48 CRC64;
                                                                                                                                                                                                                                   01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     148 AA
                                                                                                                                                                                     85 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pseudomonadaceae; Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2000 (TrEMBLrel. 15, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xanthomonadaceae; Xylella.
                                                                                                                                                                                                                                                                                                                                                           OrderedLocusNames=PA0631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  opportunistic pathogen.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OrderedLocusNames=Xf2118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 69.6
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                Pseudomonas aeruginosa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10
: |||:|||
27 VEVPLAVPC 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27 VEVPLAVPC 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein
                                                                                                                                                                                                                                                                                                                                Hypothetical protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xylella fastidiosa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ISVPLSVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=2371;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=287;
                                                                                                                                                                                                              09S564; 07DCJ0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=9a5c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9PBM2;
                                                                                                                                                                                  098564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9PBM2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
09PBM2
AC 09PBM2
AC 09PBM2
DT 01-00
DT 
                                                                                                                        RESULT 5
                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S., Barros M.H., Bonaccorsi E.D., Bordin S., Bove J.M., Eriones M.R.S., Bueno M.R.P., Camargo A.A., Camargo L.B.A., Carraro D.M., Carrer H., Columbo C., Costa F.F., Costa M.C.R., Costa-Neto C.M., A carraro D.M., Carrer H., A columbo C., Costa F.F., Costa M.C.R., Costa-Neto C.M., Parinca J.S., Franca S.C., Franca S.C., Franca C., El-Dorry H., Fraga J.S., Franca C., Frohme M., Furlan L.R., Garnier M., Goldman G.H., Goldman M.H.S., Gomes S.L., Gruber A., A carnier M., Goldman G.H., Goldman M.H.S., Gomes S.L., Gruber A., Kriegfra J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C., Lemos E.G.M., Lopes C.R., Machado J.A., Machador A.M.B.N., Madeira H.M.F., Matsukuma A.Y., Mandelra A.M.B.N., Madeira H.M.F., Matsukuma A.Y., Marcins B.A.L., Martins E.M.F., Matsukuma A.Y., Mandolra A.M.B.N., Madeira M.A., Romon D.H., Nagaim M.A., Nascimento A.L.T.O., Netto L.E.S., Nhani A.J. Nobrega F.G., Miyaki C.Y., Monteiro-Vitorello C.B., Perreira G.A.G., Perreira H.A. Jv., Penguero J.B., Quaggio R.B., Roberto P.G., Santelli R.V., Sawasaki H.E., A sliva A.C., de Sliva A.G., Perreira M.L.Z., Siqueira W.J., Ge Souza A.A., A sliva A.C., K. Ads.Liva A.M., M.L.Z., Siqueira W.J., Ge Souza A.R., Veriovski Almeida S., Vettore A.L., Sayo M.A., Varjovski Almeida S., Vettore A.L., Sayo M.A., Varjovski Almeida S., Vettore A.L., Sayo M.A., Actar M., Anderdin B.J., Setubal J.C., Sandoll J.C., Barla A., Anderdin B. J., Setubal J.C., Sayo M.A., Sayo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Littler E., Lawrence G., Liu M.Y., Barrell B.G., Arrand J.R., Gentification, cloning, and expression of the major capsid protein gene of human herpesvirus 6.";
J. Virol. 64:714-722(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lawrence G.L., Chee M., Craxton M.A., Gompels U.A., Honess R.W., Barrell B.G.; "Human herpesvirus 6 is closely related to human cytomegalovirus."; J. Virol. 64:287-299 (1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69.6%; Score 39; DB 2; Length 148; 50.0%; Pred. No. 49; ive 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL, ASVCTACO, 1882599.

PIR, G82599, G82599.

Complete protecome, Hypothetical protein.
15990 MW; B78D2FAE6B929260 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human herpesvirus 6.
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Betaherpesvirinae; Roseolovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=U1102;
MEDLINE=90112641; PubMed=2153237;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=90080132; PubMed=2152817;
```

```
MEDLINE=93091236; PubMed=1333836;
                                                                                                               STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chandran B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              epitope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jones M
                                                                                                                                                                                                                                                                                                                                                                       15]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Thomson B.J., Honess R.W.;
"The right end of the unique region of the genome of human herpesvirus 6 Ullo2 contains a candidate immediate early gene enhancer and a homologue of the human cytomegalovirus US22 gene family.";
J. Gen. Virol. 73:1649-1660(1992).
                                                                                                                         MEDLINE=91333007; PubMed=1651403;
Teo I.A., Griffin B.E., Jones M.D.;
"Characterization of the DNA polymerase gene of human herpesvirus 6.";
J. virol. 65:4670-4680(1991).
                                                                                                                                                                                                                        STRAIN=U1102;
MEDINE=91374590; PubMed=1654446;
MEDINE=91374590; PubMed=1654446;
Martin M.E.D., Nicholas J., Thomson B.J., Newman C., Honess R.W.;
"Identification of a transactivating function mapping to the putative immediate-early locus of human herpesvirus 6.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
                                 ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Geng Y., Chandran B., Jösephs S.F., Wood C.; "Identification and characterization of a human herpesvirus 6 gene segment that trans activates the human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                   Chang C.K., Balachandran N.; "Identification, characterization, and sequence analysis of a cDNA encoding a phosphoprotein of human herpesvirus 6."; J. Virol. 65:2884-2894 (1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Efstathiou S., Lawrence G.L., Brown C.M., Barrell B.G.; indentification of homologs to the human cytomegalovirus US22 gene family in human helpesvirus 6 "; J. Gen. Virol. 73:1661-1671(1992).
             Thomson B.J., Efstathiou S., Honess R.W.;
"Acquistion of the human adeno-associated virus type-2 rep gene
human herpesvirus type-6.";
Nature 351:78-80(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-92266671; PubMed=1374813;
Neipel F., Ellinger K., Fleckenstein B.;
"Gene for the major antigenic structural protein (p100) of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ellinger K., Neipel F., Foa-Tomasi L., Campadelli-Fiume G., Fleckenstein B., "The glycoprotein B homologue of human herpesvirus 6."; J. Gen. Virol. 74:495-500(1993).
 WEDLINE=91226542; PubMed=1851252; DOI=10.1038/351078a0;
                                                                                                                                                                                                                                                                                                                                                       STRAIN=U1102;
MEDLINE=91237802; PubMed=1851860;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=92148942; PubMed=1310766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=92333248; PubMed=1321205;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=92333249; PubMed=1321206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=93187613; PubMed=8383182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Virol. 66:1564-1570(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Virol. 66:3918-3924 (1992)
                                                                                                                                                                                                                                                                                                        J. Virol. 65:5381-5390(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [12]
SEQUENCE FROM N.A.
STRAIN=U1102;
                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=U1102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=U1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  promoter.
```

```
Liu D.X., Gompels U.A., Nicholas J., Lelliott C.; "Identification and expression of the human herpesvirus 6 glycoprotein H and interaction with an accessory 40K glycoprotein."; J. Gen. Virol. 74:1847-1857(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gompels U.A., Carrigan D.R., Cares A.L., Arno J.;
Gompels U.A., Carrigan D.R., Cares A.L., Arno J.;
"Two groups of human herpesvirus 6 identified by sequence analyses of laboratory strains and variants from Hodgkin's lymphoma and bone marrow transplant patients."
J. Gen. Virol. 74:613-622(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pellett P.E., Sanchez-Martinez D., Dominguez G., Black J.B., Anton E., Greenamoyer C., Dambaugh T.R., H. strongly immunoreactive virion protein of human herpesvirus 6 variant B strain 229: identification and characterization of the gene and mapping of a variant-specific monoclonal antibody reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Identification and analysis of the transport/capsid assembly protein (tp/cap) gene of human herpesvirus-6 (HHV-6)."; Virology 197:449-454(1993).
                                  Gompels U.A., Carss A.L., Sun N., Arrand J.R.;
"Infectivity determinants encoded in a conserved gene block of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Identification and mapping of the gene encoding the glycoprotein complex gp82-gp105 of human herpesvirus 6 and mapping of the neutralizing epitope recognized by monoclonal antibodies."; J. Virol. 67:4611-4620(1993).
                                                                                                                                                                                                                                                                                           Thompson J., Choudhury S., Kashanchi F., Doniger J., Berneman Z., Frenkel N., Rosenthal L.J.;
A transforming fragment within the direct repeat region of human herpesvirus type 6 that transactivates HIV-1.";
Oncogene 9:1167-1175(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nicholas J., Martin M.;
"Nucleotide sequence analysis of a 38.5-kilobase-pair region of "Nucleotide sequence analysis of encoding human cytomegalovirus genome of human herpesvirus 6 encoding human cytomegalovirus immediate-early gene homologs and transactivating functions.";
J. Virol. 68:597-610(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=93323202; PubMed=7687301;
Pfeiffer B., Berneman Z.N., Neipel F., Chang C.K., Tirwatnapong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=U1102;
MEDLINE=93331710; PubMed=7687803;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=U1102;
MEDLINE=93224882; PubMed=8385692;
                                                                                                                                                                                                                                                         MEDLINE=94181269; PubMed=8134119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=U1102;
MEDLINE=94025598; PubMed=8212582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=93389439; PubMed=8397282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=94118404; PubMed=8289364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=U1102;
MEDLINE=94167865; PubMed=8122364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Virology 195:521-531(1993).
                                                                                                                                DNA Seg. 3:25-39(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ., Teo I.;
                                                                                                    herpesvirus-6.";
RRIGHT SEEL THE SEEL
```

```
Dujon B., Sherman D., Fischer G., Durrens P., Casaregola S.,
Dujon B., Sherman D., Fischer G., Durrens P., Casaregola S.,
A defortain I., de Montigny J., Marck C., Neuveglise C., Talla B.,
A Goffard N., Frangeul L., Aigle M., Anthouard V., Babour A., Barbe V.,
Barnay S., Blanchin S., Beckerich J.M., Beyne E., Bleykasten C.,
B Boisrame A., Boyer J., Cattolico L., Confanioleri F., de Daruvar A.,
Boisrame A., Boyer J., Cattolico L., Confanioleri F., de Daruvar A.,
Hantraye F., Hennequin C., Janniaux N., Joyet P., Kachouri R.,
Kerrest A., Koszul R., Lemaire M., Lesur I., Ma L., Muller H.,
Nicaud J.M., Nikolski M., Oztas S., Ozier-Kalogeropoulos O.,
Pellenz S., Potier S., Richard G.F., Straub M.L., Suleau A.,
Swennene D., Tekaia F., Wesolowski-Louvel M., Westhof E., Wirth B.,
Zeniou-Meyer M., Zivanovic I., Bolotin-Fukuhara M., Thierry A.,
Bouchier C., Caudron B., Scarpelli C., Gaillardin C., Weissenbach J.,
M. "Genome evolution in yeasts.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=CV. Columbia,
MEDLINE=21016719; PubMed=11130712; DOI=10.1038/35048500;
Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S.,
White O., Alonso J., Altafi H., Araujo R., Bowman C.L., Brooks S.Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OrderedicousNames=Atig16336), ORFNames=F309.15;
Arabidopsis thaliana (Mouse-ear cress).
Bukaryota, Viridiplantae, Streptophytes, Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Probable inosine-5'-monophosphate dehydrogenase (BC 1.1.1.205) (IMP dehydrogenase)
                                                                                     Saccharomycetals; Saccharomycotina; Saccharomycetes; NCBI_TaxID=284591;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67.9%; Score 38; DB 2; Length 402; 75.0%; Pred. No. 2e+02; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL, CR38111, CAC79762.1; -...
GO, GO:0005634; C:nucleus; IEA.
GO; GO:000370; F:nucleuc acid binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
InterPro; IPR007087; Znf C2H2.
Pfam; PF00065; Zf-C2H2; I.
PROSITE; PS00028; ZINC FINGER C2H2 1; 1.
PROSITE; PS50157; ZINC FINGER C2H2 2; 1.
SEQUENCE 402 AA; 43889 MW; OBAC7170D0EAE444 CRC64;
25-OCT-2004 (TrEMBLrel. 28, Last annotation update) Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          502 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                             ORFNames=YAL10819965g;
Yarrowia lipolytica CL1B99.
Eukaryota; Fungi; Ascomycota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nature 430:35-44(2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43 SVPLDIPC 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
es 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                       STRAIN=CLIB99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=CLIB99;
                                                                                                                                                                                                                                                                                                            Genolevures;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMH2 ARATH
Q9SA34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IMH2_ARATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
            DDT REPORT OF RE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Thomson B.J., Dewhurst S., Gray D., "Structure and heterogeneity of the a sequences of human herpesvirus 6 strain variants U1102 and Z29 and identification of human telomeric
      Zhou Y., Chang C.K., Qian G., Chandran B., Wood C.; "trans-activation of the HIV promoter by a cDNA and its genomic clones of human beneating of "."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kumar A., Harrison P.M., Cheung K.H., Lan N., Echols N., Bertone P., Miller P., Gerstein M.B., Snyder M.;
"An integrated approach for finding overlooked genes in yeast.";
Nat. Biotechnol. 20:88-6312002).
EMBL, AF479940; AAL79253.1; -.
                                                                                                                                                                                                                                           Gompels U.A., Macaulay H.A.; "Characterisation of human telomeric repeat sequences from human herpesvirus-6 and relationship to replication."; U. Gen. Virol. 76:451-458(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Pungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67.9%; Score 38; DB 2; Length 144; 75.0%; Pred. No. 72; tive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 620;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 39; DB 2; Length 620
Pred. No. 2.1e+02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hypothetical protein.
SEQUENCE 144 AA; 16381 MW; 43F0BFCF4F5B1BFA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-07N-2002 (TrEMBLrel. 21, Created)
01-07N-2002 (TrEMBLrel. 21, Last sequence update)
01-07C-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein YDL086C-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       144 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          402 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    beat sequences at the genomic termini.";
Virol. 68:3007-3014(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=21624570; PubMed=11753363;
                                                                                                                                                                                                                MEDLINE=95146989; PubMed=7844567;
                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=U1102;
MEDLINE=94202288; PubMed=8151770;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q6C595 PRELIMINARY;
Q6C595;
25-OCT-2004 (TrEMBLrel. 28,
25-OCT-2004 (TrEMBLrel. 28,
                                                                of human herpesvirus-6.";
Virology 199:311-322(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 77.8
nes 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            439 CPSIPLSVP 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SLPISVPC 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. STRAIN=U1102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=4932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QBTGPB
```

Matches

ð 셤

RESULT 8

Matches

RESULT 9

g

Q6C595

4445

ö

Gaps

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
Buehler E., Chan A., Chao Q., Chen H., Cheuk R.F., Chin C.W.,
A Chung M.K., Conn L., Conway A.B., Conway A.R., Creasy T.H., Dewar K.,
A Dunn P., Etgu P., Feldblyum T.V., Feng J.-D., Fong B., Fulji C.Y.,
A Gill J.E., Goldsmith A.D., Haas B., Hansen N.F., Hughes B., Huizar L.,
A Kim C.J., Jenkins J., Johnson-Hopson C., Khan S., Khaykin E.,
A Kim C.J., Koo H.L., Kreemereskaia I., Kurtz D.B., Kwan A., Lam B.,
Langin-Hooper S., Lee A., Lee J.M., Lenz C.A., Li J.H., Li Y.-P.,
Lin X., Liu S.X., Liu Z.A., Luros J.S., Maiti R., Marziali A.,
A Lin S.X., Liu Z.A., Luros J.S., Maiti R., Marziali A.,
A Miltecher J., Peterson J., Pham P.K., Rizzo M., Rooney T., Rowley D.,
Sakano H., Salzberg S.L., Schwartz J.R., Shinn P., Southwick A.M.,
A Wu B., Yu G., Tambunga G., Toriumi M.J., Town C.D.,
Utterback T., Van Aken S., Vaysberg M., Vysotskaia V.S., Walker M.,
T. "Sequence and analysis of chromosome I of the plant Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAD (ADP part) (By similarity).
Thiodimidate intermediate (By similarity).
Inhibitor (By similarity).
Potassium (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                similarity).
323 Inhibitor (By similarity).
354 IMP (ribose moiety) (By similarity).
401 IMP (phosphare group) (By similarity).
54051 MM; FB87D84160818310 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Potassium (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                -!- CATALYTIC ACTIVITY: Inosine 5'-phosphate + NAD(+) + H(2)0 = xanthosine 5'-phosphate + NADH.
-!- PATHWAY: GMP biosynthesis from IMP; first step.
-!- SIMILARITY: Belongs to the IMPDH/GMPR family.
-!- SIMILARITY: Contains 1 CBS domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Inosine-5'-monophosphate dehydrogenase (EC 1.1.1.205) (IMP dehydrogenase) (IMPDH) (IMPD).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67.9%; Score 38; DB 1; Length 502;
85.7%; Pred. No. 2.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001093; IMPDh/GMPRtase.
Pfam; PF00478; IMPDH; 1.
IGNPRAMs; TIGR01302; IMP_dehydrog; 1.
PROSITE; PS00487; IMP_DH_GMP_RED; 1.
CBS domain; GMP_biosynthēsis; NAD; Oxidoreductase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  503 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 2.5e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Interpro; IPR003009; FMN enzyme.
Interpro; IPR005900; IMP_dehyd.
Interpro; IPR001093; IMPDh/GMFRtase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AC006341; AAD34687.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Repeat.
                                                                                                                                                                                                                                                                                                                  Nature 408:816-820(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; F86298; F86298.
HSSP; P12268; 1B3O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Purine biosynthesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 VPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49 VPLSIPC 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                502 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           266
316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IMH1_ARATH
P47996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACT SITE
BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NP_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
IMH1_ARATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
       VERTARE VERTARE
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.

STRAIN=CV. Columbia;

MEDLINE=21016719; PubMed=11130712; DOI=10.1038/35048500;

Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S.,

Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S.,

White O., Alonso J., Altafi H., Araujo R., Bowman C.L., Brooks S.Y.,

Buehler E., Chan L., Conway A.B., Conway A.R., Creasy T.H., Dewar K.,

Chung M.K., Conn L., Conway A.B., Conway A.B., Crong B., Fujii C.Y.,

Chun P., Ergu P., Feldblyum T.V., Feng J.-D., Fong B., Fujii C.Y.,

Cill J.E., Jenkins J., Johnson-Hopson C., Khan S., Khaykin E.,

Kim C.J., Koo H.L., Kremenetskaia I., Kurtz D.B., Kwan A., Lam B.,

Langin-Hooper S., Lue A., Lee J.M., Lenz C.A., Lil J.H., Li Y.-P.,

An in K., Liu S.X., Liu Z.A., Luros J.S., Matti R., Marziali A.,

Miltscher J., Miranda M., Nguyen M., Nierman W.C., Osborne B.I.,

Rakano H., Salzberg S.L., Schwartz J.R., Shinn P., Southwick A.M.,

Sakano H., Tallon L.J., Tambunga G., Toriumi M.J., Town C.D.,

Wu D., Yu G., Fraser C.M., Venter J.C., Davis R.W.;

"Sequence and analysis of chromosome I of the plant Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Thioimidate intermediate (By similarity). Inhibitor (By similarity). Potassium (via carbonyl oxygen) (By
Arabidopsis thaliana (Mouse-ear Cress). ORFNames=T8K14.11;
Bukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                            SEQUENCE FROM N.A.
STRAINS-C. Columbia,
MEDIJINE-97045815; PubMed-8890737; DOI=10.1016/0378-1119(96)00045-5;
Collart F.R., Osipiuk J., Trent J., Olsen G.J., Huberman E.;
"Cloning and characterization of the gene encoding IMP dehydrogenase from Arabidopsis thaliana.";
Gene 174:217-220(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       similarity).
Inhibitor (By similarity).
IMP (ribose moiety) (By similarity).
IMP (phosphate group) (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nature 408:816-820(2000).

-!- CATALYTIC ACTIVITY: Inosine 5'-phosphate + NAD(+) + H(2)O = xanthosine 5'-phosphate + NADH.

-!- PATHWAY: GMP biosynthesis from IMP; first step.
-!- SIMILARITY: Belongs to the IMPDH/GMPR family.
-!- SIMILARITY: Contains 2 CBS domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      similarity).
Potassium (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAD (ADP part) (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam, PF00478; IMPDH; 1.
TGRRAMB; TIGR01302; IMP dehydrog; 1.
PROSITE: PS00487; IMP DH GMP RED; 1.
CBS domain; GMP biosynthesis; NAD; Oxidoreductase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR003009; FMN_enzyme.
InterPro; IPR005990; IMP_dehyd.
InterPro; IPR001093; IMPDh/GMPRtase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC007202; AAD30229.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; L34684; AAB41940.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Repeat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                322 267 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             324
355
402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; JC4999; JC4999.
HSSP; P12268; 1B30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Purine biosynthesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             324
355
402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACT SITE
BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BINDING
BINDING
BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NP BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       METAL
```

S

ઠે 셤 QBL8U2

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAIN=NCIMB 8826 / WCFS1;

STRAIN=S2480296; Pubmed=12565656; DOI=10.1073/pnas.0337704100;

Kleerebezem W. Boekhorst J., van Kranenburg R., Molenaar D.,

Kulpers O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M.,

Kulpers O.P., Leer R., Tarchini R., Peters R.M., Bron P.A.,

Fiers M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A.,

A Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing B.,

De Vos W.M., Siezen R.J.;

"Complete genome sequence of Lactobacillus plantarum WCFS1.";

Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).

-!- CATALYITC ACTIVITY: Adenine + H(2)O = hypoxanthine + NH(3).

-!- COFACTOR: Manganese (By similarity).
                                                                                                                                           Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchiumi T.,
Sasamoto S., Watanabe A., Idesawa K., Iriguchi M., Kawashima K.,
Kohara M., Matsumoto M., Shimpo S., Tsuruoka H., Wada T., Yamada M.,
                                                                                                                                                                                                               "Complete genomic sequence of nitrogen-fixing symbiotic bacterium Bradyrhizobium japonicum USDA110.";
BNA Res. 9:189-197 (2002).
BMB. AP005962; BAC52894.1; -
GO, GO:0005524; F:ATP binding; IEA.
GO, GO:0005678; F:DNA helicase activity; IEA.
GO, GO:0006830; carboxylyase.
InterPro; IPR007693; carboxylyase.
InterPro; IPR007693; Hemopexin.
                  Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67.9%; Score 38; DB 2; Length 528; 66.7%; Pred. No. 2.7e+02; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-0CT-2004 (Rel. 45, Created)
25-0CT-2004 (Rel. 45, Last sequence update)
25-0CT-2004 (Rel. 45, Last annotation update)
Adenine deaminase (EC 3.5.4.2) (Adenase) (Adenine aminase Name-ade; Synonyms-adeC; OrderedLocusNames=1p_3334; Lactobacillus plantarum.
Bacteria; Firmicutes; Lactobacillales; Lactobacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         528 AA; 58441 MW; 4A1DB04BD1B08546 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              563 AA
                                                                                                                                                                                                                                                                                                                                                                                                                     TIGRFAMS; TIGR00148; carboxylyase; 1.
PROSITE; PS00024; HEMOPEXIN; UNKNOWN_1.
                                         Bradyrhizobiaceae; Bradyrhizobium.
                                                                                                                             MEDLINE=22484998; PubMed=12597275;
   Bradyrhizobium japonicum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF01977; UbiD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       284 CLTVPLEVP 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complete proteome. SEQUENCE 528 AA;
                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=1590;
                                                         NCBI_TaxID=375;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADEC LACPL
Q88SR1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                    Arabidopsis thaliana (Mouse-ear cress).

Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids,
eurosids II, Brassicales, Brassicaceae, Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Haas B.J., Volfovsky N., Town C.D., Troukhan M., Alexandrov N., Feldmann K.A., Flavell R.B., White O., Salzberg S.L.; "Full-length messenger RNA sequences greatly improve genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 503;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67.9%; Score 38; DB 2; Length 503;
85.7%; Pred. No. 2.5e+02;
ive 1; Mismatches 0; Indels
                                   Score 38; DB 1; Length 503
Pred. No. 2.5e+02;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 503 AA; 54218 MW; 99D478F48F4E649C CRC64;
54194 MW; ADDDAF9C3A697A9A CRC64;
                                                                                                                                                                                                                                                               01-0CT-2002 (TrEMBLrel. 22, Created)
01-0CT-2002 (TrEMBLrel. 22, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Inosine-5'-monophosphate dehydrogenase, putative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genome Biol. 3:RESEARCH0029-RESEARCH0029(2002)
                                                                                                                                                                                                                                     503 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       528 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=22088475; PubMed=12093376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2003 (TrEMBLrel. 24, C
01-JUN-2003 (TrEMBLrel. 24, L
01-MAR-2004 (TrEMBLrel. 26, L
BL7629 protein.
OrderedLocusNames=blr7629;
                                   67.9%;
85.7%;
             6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                          4 VPLSVPC 10
                                                                                                                             49 VPLSIPC 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 VPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49 VPLSIPC 55
503 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                annotation.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                    Q8L8U2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         089016;
```

ô

Gaps

. 0

В: Н

089016

RESULT 13 Q89D16 ID Q89D1 AC Q89D1 DT 01-JU DT 01-JU DT 01-M DE B1r76 GN Order

Best Loc Matches

ઠે g

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=99120557; PubMed=9923682; DOI=10.1038/16495;
Alm R.A., Ling L.-S.L., Moir D.T., King B.L., Brown E.D., Doig P.C.,
Smith D.R., Noonan B., Guild B.C., deJonge B.L., Carmel G.,
Tummino P.J., Caruso A., Uria-Nickelsen M., Mills D.M., Ives C.,
Gibson R., Merberg D., Mills S.D., Jiang Q., Taylor D.E., Vovis G.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Genomic sequence comparison of two unrelated isolates of the human gastric pathogen Helicobacter pylori.";
Nature 397:176-180(1999).
-1- SIMILARITY: Belongs to the ubiD family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Helicobatter pylori 399 (Campylobatter pylori 399).
Bacteria; Proteobacteria; Epsilonproteobacteria; Campylobacterales;
Helicobacteraceae; Helicobacter.
                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 616;
                                                                                                                                                                                           Length 563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67.9%; Score 38; DB 1; Length 616
77.8%; Pred. No. 3.1e+02;
iive 1; Mismatches 1; Indels
                                                                                                                                                                                        67.9%; Score 38; DB 1; Length 563
60.0%; Pred. No. 2.8e+02;
tive 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AE001527; AAD06568.1; -.
PIR; D71864; D71864.
InterPro; IPR00289.
TIGRSTAMS, TIGR00148; carboxylyase, 1.
TIGRFAMS, TIGR00148; carboxylyase; 1.
SEQUENCE 616 AA; 70989 WW; C219E1DCE4CBEDD5 CRC64;
                                                                                                                                      Complete proteome; Hydrolase; Manganese.
SEQUENCE 563 AA; 60927 MW; A4B5159C11718FA7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                     (Rel. 39, Last sequence update) (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                     616 AA
            HAMAP; MF_01518; -; 1.
InterPro; IPR006679; Adenine_deam.
InterPro; IPR006689; Adenine_deam.
InterPro; IPR011059; Metalo_hydrolase.
Pfam; PF01979; Amidohydro_l; 1.
ProDom; PD001248; Amidohydro_like; 1.
TIGRFAMS; TIGR01178; ade; 1.
                                                                                                                                                                                                                                                                                                                                                                                     PRT;
EMBL; AL935261; CAD65449.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAY-2000 (Rel. 39, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein JHP0985.
                                                                                                                                                                       Query Match
Best Local Similarity 60.0.
Best Local 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OrderedLocusNames=JHP0985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 77.8
nes 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                120 CFMLPSSVPC 129
                                                                                                                                                                                                                                                               1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=85963;
                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAY-2000
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                     Y396_HELPJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    O9ZKE3;
                                                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                g
```

```
Search completed: April 1, 2005, 09:26:07
Job time : 63.2329 secs
'A
                    253 ČLŠNPLSVP 261
1 CISVPLSVP 9
à
                    셤
```

Human pro Pseudomon Pseudomon

Drosophil hum Oxorl hum Oxorl hum Oxorl hum Oxorl hum Oxorps D-NorPs D

ALIGNMENTS

Admos846 hbo74636 hbo74636 hbb74636 hbb67498 hbb67498 hbg21894 hbg7124 daw82212 haw4656 hbm54997 hbm54997 hbm564007 hbm564007 hbb666191 hbb666191 hbb666191 hbg89148 hab45461 hbg89148 hab45461 hbg94148 hab45461 hbg89148 hbb666191 hbg89148 hbb676191 hbg89148 hbb676191 hbg89148 hbb676191 hbg89148 hbb676191 hbg89148 hbb676191 hbg89148 hbb676191 hbg89148 hbb7461 hbg89148 hbb74611 hbg89148 hbb7461 hbb7461 hbg7461 hbg7461 hbg7461 hbg7461 hbg7461 hbg7491 hbg7461 hbg7491 hbg7491 hbg7461 hbg7491 hbg

```
ABO74636
ABO70058
ABB67498
                                                                      ABG21894
ABB65635
ABB65635
ABG71244
AAR85212
AAW46562
AAW54697
ABP64007
ABP64007
AAB45460
AAB45460
AAB45460
AAB45460
AAB45460
                                                                                             4466664666666
 Human psy
VEGF base
VEGF base
VEGF base
Human rep
Human rep
Human rep
Human rep
Human rep
Human rep
Human pes
Mouse hai
Pseudomon
VEGF base
Novel hum
Novel hum
Novel hum
Peptide #
Protein #
Human pep
Human pep
Human pep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                     April 1, 2005, 03:27:37 ; Search time 75.4794 Seconds (Without alignments) 51.240 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aau04526
Aar66394
Aau06539
Aau04533
Aau04533
Aau04545
Aau05534
Aau05534
Aam95827
Aam95827
Abb96358
Abb96463
Abb96408
Abb26403
Abb26407
Abb96407
Abb96408
             version 5.1.6
- 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                     2105692 seqs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                         protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU04532
AAU04526
AAU04542
AAU04543
AAU04544
AAU04544
AAM95534
AAM95537
ABD96216
AAM95827
ABD96216
AAM95827
ABD96216
AAM9623
ABD96216
AAM9623
ABD96216
AAM9623
ABD96216
AAM9623
AAM9603
AAM960
                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A Geneseq_16Dec04:*
    geneseqp1980s:*
    geneseqp200s:*
    geneseqp2001s:*
    geneseqp2001s:*
    geneseqp2001s:*
    geneseqp2003s:*
    geneseqp2003bs:*
                 GenCore (c) 1993
                                                                                                                                                                                                 US-09-761-636A-13
56
1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                             length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 2 ... 
                                                                                                                                                                                                                                                                                                                                                                                                                 seq
                                                                                                                                                                                                                      Perfect score:
                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45.56
443.55
441.5
441.5
40.53
                                                                                         OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB 8
Maximum DB 8
                                                                                                                                                                                                                                             Seguence:
                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                              ü
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2222108976543
2232108876543
                                                                                                                                                                                                    Title
```

ID AAU04532 standard; peptide; 10 AA.
XX AC AAU04532;
XX
DT 26-SEP-2001 (first entry)
AA TROTE hassed monocyclic newtide 10
KW Human, VEGF; vascular endothelial growth factor; angiogenesis;
esis; psoriasis;
KW diabetes induced neovascular sequelae; rheumatoid arthritis;
OS Synthetic.
;
Key
Disulfide-bond 110
FT /note= "This bond cyclises the peptide"
XX PN WO200152875-A1.

PD 26-JUL-2001.
PF 18-JAN-2001; 2001WO-US001533.
PR 18-JAN-2000; 2000US-0176293P.
16-MAY-2000;
PA (LUDW-) LUDWIG INST CANCER RES.
AA DI Achen MG. Hughes RA. Stacker S. Cendron A:
DR WPI; 2001-442248/47.
XX
PT Novel monomeric monocyclic peptide, used to interfere with angiogenesis,
PT residues.
PS Claim 49; Page 32; 102pp; English.
Ī
CC whose 3-dimensional structure is modelled on the expose loop of numan
cc method of producing a monomeric monocyclic peptide by a measuring

Aag30888 Aag20989 Aag43108 Abb15040

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

To cyclisation are used to interfere with angiogenesis.

Characterised by angiogenesis in a mammal with a condition characterised by angiogenesis, neovacularisation or lymphangiogenesis.

The condition is diabetic retinopathy, postrains, arthropathy, hear or cold trauma, substance-induced meovascularisation of the liver, excessive trauma, substance-induced neovascular sequelae, hypertension induced neovascular sequelae, neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to inage blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a action of the limbs of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, VEGF; vascular endothelial growth factor; angiogenesis; necvascularisation; lymphangiogenesis; psoriassis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 56; DB 4; Length 10; 100.0%; Pred. No. 0.013; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU04526 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based monocyclic peptide 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human vESPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betaleta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of agrowth factor protein and cyclising the peptides by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

To cyclisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis, neovascularisation or lymphangiogenesis, neovascularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriaeis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive bormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are also used to modulate vascular bench of accumulation in peripheral limbs or in lungs, peritoneal cavity, pleure with at least one biological activity induced by VEGF. Cor D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, which at nati-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat and alternate one biological are used to induce the accumulation with an ant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human psychosis protecting peptide encoded by reading frame 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .141
/note= "X corresp. to translated stop codon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 45.5; DB 4; Length 11;
Pred. No. 0.73;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Basham DA, Miller JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR66394 standard; peptide; 141 AA.
                                          Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81.2%;
90.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Psychosis protecting peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94WO-US005445.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93US-00060560.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYNY ) UNIV NEW YORK STATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 90.9
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Friedhoff AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-MAR-2003
11-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9426107-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-NOV-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR66394;
residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR66394
qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
```

us-09-761-636a-13.open.rag

```
RESULT
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                        Psychosis protecting peptide (PP peptide) can be obtd. intitially by using the sequence in AA075090 as a basis for designing polymucleotide probes to clone, sequence and express or synthesize PP related proteisn and peptides occurring in normal individuals, and to a substantially lesser degree in individuals with psychotic disorders. The PP encoding gene was discovered using the subtraction cloning of cDNA from mRNA obtd. from monoxygotic twins discordant for schizophrenia and assaying for clones in which expression is greatest in the 'well' twin. A nt sequence substantially corresp. to AA075090 is claimed, which comprises 30-X nts, where X=80, 95, 158. 222, 249, 260, 295, 407 or 423. A PP peptide of 10-141 AAs is also claimed. (Updated on 25-MAR-2003 to correct PN field.)
                                          nucleic acids encoding psychosis protecting peptide and antibodies -
the treatment, diagnosis and research of psychotic disorders, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                  Score 45; DB 2; Length 141;
Pred. No. 12;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                         AAU04542 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         VEGF based monocyclic peptide 20.
                                                                                     Claim 1; Page 56; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                80.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                    26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                  Query Match 80.4
Best Local Similarity 77.8
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hughes RA,
                                                                                                                                                                                                                                                                                                                          |||:|||:|
CISIPLSIP 36
                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-442248/47.
           WPI; 1995-006234/01
                                                                                                                                                                                                                                                                                                              CISVPLSVP
                     N-PSDB; AAQ75090
                                                                                                                                                                                                                                             Sequence 141 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disulfide-bond
                                                                schizophrenia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                               AAU04542;
                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          residues.
                                                                                                                                                                                                                                                                                                                                   28
                                           New
                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
셤
                                                                                                                                                                                                                                                                                                              ઠે
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CC whose 3-dimensional structure is modelled on the expose loop of human cc wethod of producing a monomeric monocyclic peptide by a measuring beta method of producing a monomeric monocyclic peptide by a measuring beta ccomplete loop fragment from an exposed loop of a growth factor protein and cyclic peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

CC peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation of the liver, excessive cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive correction. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritones and lymphatic or brain. The peptides are used to image blood vesels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF. Cor. D and are also used in combination with an anti-inflammatory agent, to treat a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, VEGF, vascular endothelial growth factor; angiogenesis,
neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovascular sequelae; rheumatoid arthritis;
diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77.7%; Score 43.5; DB 4; Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels

    .9 // This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 1.6;
1; Mismatches
Example 25; Page 47; 102pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGF based monocyclic peptide 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU04533 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSVPLTSVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU04533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU04533
```

us-09-761-636a-13.open.rag

```
Human; VEGF; vascular endothelial growth factor; angiogenesis;

    .11
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                     Key
Disulfide-bond
                                                                                                                             Sequence 9 AA;
                                                                                                                                                                                                                                 WO200152875-A1
                                                                                                                                                                                  26-SEP-2001
                                                                                                                                                                                                               Synthetic
   Achen MG,
                         residues.
                                                                                                                                                                            AAU04545;
                                                                                                                                    Query Match
                                                                                                                                       Best Loc
Matches
                                                                                                                                                                  RESULT 6
ð
                                                                                                                                                     g
```

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human configuration for the invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior cocyclisation are used to interfere with angiogenesis,

Co cyclisation are used to interfere with angiogenesis,

Co cyclisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

Che condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplascy restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertenaion induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limps or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic with at least one biological activity induced by VEGF, VEGF-C or D and are also used in combination with a mattiniflammatory agent, to treat a direction in peripheral limps or in lungs, peritones and and activity induced by VEGF, VEGF-C or D and chronic inflammation with an antiniflammatory agent, to treat a direction of the incomplex of the mammal characterised by the peritone with an antiniflammatory agent, to treat and the peritone peritone in the manner of the mammal c Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine Cendron A; Stacker S, Claim 49; Page 32; 102pp; English. Hughes RA, WPI; 2001-442248/47. diabetic retinopathy

Novel monomeric monocyclic peptide, used to interfere with angiogenesis,

Cendron A;

Stacker S,

Hughes RA,

Achen MG,

WPI; 2001-442248/47.

(LUDW-) LUDWIG INST CANCER RES 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. 18-JAN-2001; 2001WO-US001533.

26-JUL-2001

1; Gaps ä 74.1%; Score 41.5; DB 4; Length 9; 90.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels Conservative Local Similarity

1 CISVPLSVPC 10 9 CISVPL-VPC

AAU04545 standard; peptide; 11 AA. VEGF based monocyclic peptide 23. (first entry)

neovascularisation, lymphangiogenesis, psoriasis, tumour; diabetes induced neovascular sequelae, rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Location/Qualifiers

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis;

VEGF based monocyclic peptide 22.

(first entry)

26-SEP-2001

beta carbon separation distances on opposite perpute by a measuring beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the perpute by a measurement of a growth factor protein and peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, conversal arcacterised by angiogenesis, neovascularisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis, arthropathy, the condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, head, heat or cordition is diabetic retinopathy restenosis, head, heat or crauma, substance-induced neovascular sequelae, nypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic or brain. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and 1; or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-Gaps ä 74.1%; Score 41.5; DB 4; Length 11; 72.7%; Pred. No. 3.3; ive 2; Mismatches 0; Indels Example 25; Page 47; 102pp; English AAU04544 standard; peptide; 11 AA. Conservative 1 CISVPL-SVPC 10 1 CVSVPLTTVPC 11 diabetic retinopathy Query Match Best Local Similarity Matches 8; Conserv Sequence 11 AA; AAU04544; residues RESULT '7 AAU04544 g ठे

വ

```
2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0225268P.
2000US-0225270P.
2000US-0225447P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0225213P.
2000US-0225214P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0231243P.
2000US-0231244P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0186350P.
2000US-0189874P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0198123P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0209467P.
2000US-0214886P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0215135P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0216880P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0217487P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0225266P.
2000US-0225267P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0227009P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3000US-0228924P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0229344P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0229509P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :000US-0231414P
                                                            21-NOV-2001 (first entry)
                                                                                                                                                                                                                     cancer; gene therapy.
                                                                                                                                                                                                                                                                                                                                        WO200155320-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-MAR-2000;
16-MAR-2000;
17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
14-AUG-2000;
18-AUG-2000;
                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-AUG-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                     02-AUG-2001
   AAM95534;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The Suguence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human useful of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide by oxidiaing the peptide by a monomeric monocyclic peptide by a measuring beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and conclusion beta cyclic peptides (comprising 2 linked monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic comprision are used to interfere with angiogenesis, coversularisation or lymphangiogenesis, neovascularisation or lymphangiopenesis, neovascularisation or lymphangiopenesis, neovascularisation of the liver, excessive corporance induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability cor brain. The peptides are used to image blood vessels and lymphatic corputation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic corputation elemental pass and bicyclic peptides are used to interfere corputation inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammatory agent, to treat a corputation of the peptides are used to interfere to the peptides are used to interfere to t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence represents a monomeric monocyclic peptide of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 40.5; DB 4; Length 11;
Pred. No. 4.8;
2; Mismatches 0; Indels

    .11
/note= "This bond cyclises the peptide"

diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cendron A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 25; Page 47; 102pp; English.
                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                     18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                              18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72.3%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 72.7
les 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CISLPISSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 11 AA;
                                                                                                                                                  Disulfide-bond
                                                                                                                                                                                                                                            WO200152875-A1
                                                                                                                                                                                                                                                                                                        26-JUL-2001
                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
```

```
Human; reproductive system related antigen; reproductive system disorder;
             Human reproductive system related antigen SEQ ID NO: 4192.
                                                                                                                                                   2000US-0225757P.
2000US-0225758P.
2000US-0225759P.
2000US-0226279P.
                                                                                                                                                                 2000US-0226681P.
2000US-0226868P.
2000US-0227182P.
                                                                                                                                                                                                                                               2000US-0232399P.
2000US-0232400P.
```

14-SEP-2000;

AAM95534 standard; protein; 77 AA.

AAM95534 ID AAM9 XX

ò 셤

```
2000US-0246611P.
2000US-0246613P.
2000US-0249207P.
2000US-0249208P.
2000US-0249209P.
                                                                                                                                                                                                                                                                                                                                                                                        2000US-0246525P.
2000US-0246526P.
2000US-0246527P.
2000US-0246528P.
                2000US - 0233064P

2000US - 023423P

2000US - 023423P

2000US - 023493P

2000US - 023499P

2000US - 023499P

2000US - 023499P

2000US - 0235834P

2000US - 0235834P

2000US - 0235836P

2000US - 023636P

2000US - 023636P

2000US - 02363P

2000US - 02363P
                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0246532P.
2000US-0246609P.
2000US-0246610P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0249244P.
2000US-0249245P.
2000US-0249264P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0251988P.
2000US-0256719P.
2000US-0251479P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0249213P.
2000US-0249214P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0249215P.
2000US-0249216P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0249218P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0249297P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0249300P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0249211P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-NOV-2000;
27-NOV-2000;
27-NOV-2000;
27-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                        08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                14-SEP-2000;
21-SEP-2000;
21-SEP-2000;
25-SEP-2000;
25-SEP-2000;
26-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                          20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
01-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                            08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                            29-58P-2000;
29-58P-2000;
29-58P-2000;
02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
03-0CT-2000;
                                                                                                                                                                                                                                                                                                                                08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                          08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-NOV-2000
```

```
isolated nucleic acid molecule encoding a reproductive system antigen is used in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                            The present invention provides the protein and coding sequences of a number of human reproductive system related antigens. These can be used in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; testicular antigen; testes; cancer; metastasis; immune disorder; reproductive system disorder; urinary system disorder; gene therapy; cardiovascular disorder; respiratory disorder; neurological disorder; gastrointestinal disease; infection; cytostatic.
                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                      Claim 11; SEQ ID NO 4192; 1297pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                  4; Length 77;
                                                                                                                                                                                                                                                                                                                                 69.6%; Score 39; DB
40.0%; Pred. No. 63;
iive 4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human testicular antigen SEQ ID NO: 1600.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB96216 standard; protein; 77 AA
                                                                                                                        Ruben SM;
08-DEC-2000; 2000US-0251856P.

08-DEC-2000; 2000US-0251868P.

08-DEC-2000; 2000US-0251869P.

08-DEC-2000; 2000US-0251989P.

11-DEC-2000; 2000US-0251990P.

11-DEC-2000; 2000US-02590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0179065P.
2000US-0180628P.
2000US-018464P.
2000US-0189874P.
2000US-019976P.
2000US-019076P.
2000US-0190076P.
2000US-0209467P.
2000US-0209467P.
2000US-0215135P.
2000US-021647P.
2000US-021647P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US001329
                                                                                                 (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                              Local Similarity 40.0
                                                                                                                                                                                                                                                                                                                                                                                                 |:: |::||
CLNAPIRIPC 56
                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPLSVPC 10
                                                                                                                        Barash SC,
                                                                                                                                              WPI; 2001-465570/50.
N-PSDB; AAL01504.
                                                                                                                                                                                                                                                                                                            Sequence 77 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200155317-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-JAN-2000; 2

44-FEB-2000; 2

44-FEB-2000; 2

02-MAR-2000; 2

11-MAR-2000; 2

17-MAR-2000; 2

17-MAY-2000; 2

19-MAY-2000; 2

29-JUN-2000; 2

30-JUN-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JUN-2002
                                                                                                                        Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABB96216;
                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABB9621
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                    Ś
```

ô

```
HR 11.-UIL. 2000; 2000US 0217495P.

RR 26.-UIL. 2000; 2000US 022295P.

RR 14.-AUG-2000; 2000US 022451BP.

RR 14.-AUG-2000; 2000US 022451BP.

RR 14.-AUG-2000; 2000US 022451BP.

RR 14.-AUG-2000; 2000US 0222514P.

RR 14.-AUG-2000; 2000US 022251BP.

RR 22.-AUG-2000; 2000US 022281BP.

RR 22.-AUG-2000; 2000US 022281BP.

RR 22.-AUG-2000; 2000US 022394BP.

RR 14.-SEP-2000; 2000US 022394BP.

RR 16.-SEP-2000; 2000US 023394BP.

RR 16.-SEP-2000; 2000US 023394BP.

RR 16.-SEP-2000; 2000US 023394BP.

RR 26.-SEP-2000; 2000US 0233934P.

RR 26.-SEP-2000; 2000US 023499P.

RR 26.-SEP-2000; 2000US 023499P.

RR 26.-SEP-2000; 2000US 023499P.

RR 26.-SEP-2000; 2000US 0233933P.

RR 26.-SEP-2000; 2
```

```
The present invention provides the protein and coding sequences of 973 human testicular antigens, and fragments of their genomic sequences. The sequences can be used in the treatment of cardiovascular, urinary system, reproductive system, immune, respiratory, neurological and gastrointestinal disorders, infections, and particularly cancer, especially testicular cancers. The present sequence is a protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acids encoding 973 human testicular antigen polypeptides, useful for preventing, diagnosing and/or treating testicular cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; SEQ ID NO 1600; 766pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ruben SM;
  2000US-0244617P-
2000US-0246474P-
2000US-0246477P-
2000US-0246473P-
2000US-0246524P-
2000US-0249210P-
2000US-0249210P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-0249211P-
2000US-024921P-
2000US-024921P-
2000US-024924P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0251479P.
2000US-0251856P.
2000US-0251868P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0000US-0251869P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0251989P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0251990P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-483232/52
01-NOV-2000;

08-NOV-2000;

09-NOV-2000;

09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-NOV-2000; 2
01-DEC-2000; 2
01-DEC-2000; 2
05-DEC-2000; 2
05-DEC-2000; 2
06-DEC-2000; 2
06-DEC-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-DEC-2000;
05-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HUMA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic
```

4; Length 77,

Score 39; DB Pred. No. 63;

69.6%;

Sequence 77 AA; Query Match Best Local Similarity

```
2000US-0232399P.
2000US-0232400P.
2000US-023364P.
2000US-023364P.
2000US-023365P.
2000US-0234274P.
2000US-023499P.
2000US-023499P.
2000US-0235484P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0249244P
2000US-0249245P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0246478P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                           25-SEP-2000;
26-SEP-2000;
27-SEP-2000;
27-SEP-2000;
27-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
20-SEP-2000;
20-SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-OCT-2000;
13-OCT-2000;
13-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-2000;
17-NOV-2000;
    ö
                                                                                                                                                                                                                                                                                                                                                                                Human; reproductive system related antigen; reproductive system disorder; cancer; gene therapy.
      Gaps
      ;
0
                                                                                                                                                                                                                                                                                                                                      Human reproductive system related antigen SEQ ID NO: 4485.
      Indels
      5
      Mismatches
                                                                                                                                                                                                          AAM95827 standard; protein; 108 AA
         4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0216647P-
2000US-0216680P-
2000US-0216880P-
2000US-02174867P-
2000US-0220963P-
2000US-0220963P-
2000US-0220963P-
2000US-0220963P-
2000US-0220963P-
2000US-02254513P-
2000US-0225214P-
2000US-0225214P-
2000US-0225214P-
2000US-0225270P-
2000US-0225270P-
2000US-0225747P-
2000US-02274782P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0228924P.
2000US-0229287P.
2000US-0229343P.
2000US-0229344P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0179065P.
2000US-0180628P.
2000US-018464P.
2000US-0186350P.
2000US-0189874P.
2000US-0190076P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0205515P.
2000US-0209467P.
2000US-0214886P.
2000US-0215135P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0230437P.
2000US-0230438P.
2000US-0231242P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-JAN-2001; 2001WO-US001339
                                                                                                                                                                                                                                                                                             21-NOV-2001 (first entry)
      4; Conservative
                                                                                         26
                                                  CISVPLSVPC 10
                                                                         |:: |::||
CLNAPIRIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200155320-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-SEP-2000; 2
06-SEP-2000; 2
08-SEP-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-AUG-2000;
14-AUG-2000;
18-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAY-2000;
07-JUN-2000;
28-JUN-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-AUG-2001
                                                                                                                                                                                                                                                   AAM95827;
                                                    ч
                                                                                            47
                                                                                                                                                            RESULT 10

AAM95827

XX

AC AAM95

XX

DT 21-NO

XX

Cance

XX

Human

XX

Human

XX

Homo

Homo
         Matches
                                                    ð
                                                                                         g
```

us-09-761-636a-13.open.rag

```
2000US-0198123P
2000US-0198123P
2000US-0205515P
2000US-0214886P
2000US-0215135P
2000US-0216880P
2000US-0216880P
2000US-0216880P
2000US-0216880P
2000US-0216880P
2000US-0216880P
2000US-0217487P
2000US-0220564P
2000US-0220564P
2000US-0220564P
2000US-0220564P
2000US-0220564P
2000US-0220564P
                                                                                                                                                                                                                                                                                                                                 2000US-0225266P

2000US-022526P

2000US-0225270P

2000US-0225757P

2000US-0225757P

2000US-0225757P

2000US-0225757P

2000US-022579P

2000US-0226279P

2000US-02268BP

2000US-02268BP

2000US-02268BP

2000US-02268BP

2000US-02268BP

2000US-022934PP

2000US-023934PP

2000US-023934PP

2000US-023934PP

2000US-023934PP

2000US-023934PP

2000US-023934PP

2000US-023934PP

2000US-023938PP

2000US-0231248PP

2000US-0231248PP

2000US-0231248PP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20000S-0232399P-
20000S-0232400P-
20000S-0233064P-
20000S-0233064P-
20000S-0233065P-
20000S-0233065P-
20000S-023423P-
20000S-023493P-
20000S-023499P-
20000S-0235484P-
20000S-023548P-
20000S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0237037P.
2000US-0237038P.
2000US-0237039P.
 02-MAR-2000; 2
16-MAR-2000; 2
17-MAR-2000; 2
19-MAY-2000; 2
07-JUN-2000; 2
28-JUN-2000; 2
30-JUN-2000; 2
07-JUN-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
30-AUG-2000;
30-AUG-2000;
30-AUG-2000;
01-SEP-2000;
01-SEP-2000;
01-SEP-2000;
05-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-8EP-2000;
14-8EP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-SEP-2000; 29-SEP-2000; 29-SEP-2000; 29-SEP-2000; 29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                     14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-SEP-2000;
26-SEP-2000;
     o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention provides the protein and coding sequences of a number of human reproductive system related antigens. These can be used in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; testicular antigen; testes; cancer; metastasis; immune disorder; reproductive system disorder; urinary system disorder; gene therapy; cardiovascular disorder; respiratory disorder; neurological disorder; gastrointestinal disease; infection; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Isolated nucleic acid molecule encoding a reproductive system antigen used in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 11; SEQ ID NO 4485; 1297pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 39; DB 4; Length 108;
Pred. No. 89;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human testicular antigen SEQ ID NO: 1742.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB96358 standard; protein; 108 AA
                                                                                                                                                                                                                                                                                                                                                                       Ruben SM
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-0249299P.
17-NOV-2000; 2000US-0249299P.
17-NOV-2000; 2000US-0249299P.
17-NOV-2000; 2000US-0249300P.
01-DEC-2000; 2000US-0250191P.
05-DEC-2000; 2000US-025193P.
05-DEC-2000; 2000US-025198P.
05-DEC-2000; 2000US-025198P.
06-DEC-2000; 2000US-025198P.
06-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-JAN-2000; 2000US-0179065P.
04-FEB-2000; 2000US-0180628P.
24-FEB-2000; 2000US-0184664P.
                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JAN-2001; 2001WO-US001329
                                                                                                                                                                                                                                                                                                  05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 77.8
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                       Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :||||| ||
VSVPLSHPC 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-465570/50.
                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAL01797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200155317-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-AUG-2001,
                                                                                                                                                                                                                                                                                                                                                                       Ğ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABB96358;
                                                                                                                                                                                                                                                                                                                                                                       Rosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-0249299P.
17-NOV-2000; 2000US-0249300P.
01-DEC-2000; 2000US-0250160P.
01-DEC-2000; 2000US-0250391P.
05-DEC-2000; 2000US-0251030P.
05-DEC-2000; 2000US-0251030P.
05-DEC-2000; 2000US-0251030P.
06-DEC-2000; 2000US-025103P.
                                                                                                                                                                              2000US-0246609P.
2000US-0246610P.
2000US-0246611P.
                                                                                                                                                                                                                                                                                                   2000US-0249244P.
2000US-0249245P.
2000US-0249264P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                           2000US-0249209P.
                                                                                                                                                                                                                                  2000US-0249210P.
2000US-0249211P.
                                                                                                                                                                                                                                                2000US-0249212P.
                                                                                                                                                                                                                                                                     2000US-0249215P.
                                                                                                                                                                                                                                                                             2000US-0249216P.
2000US-0249217P.
                                                                                                                                                                                                                                                                                           2000US-0249218P
                                                                                                                                                                                                                                                                                                                                                                                                  08-DEC-2000; 2000US-0251856P
                                                                                                                                                                                                                   2000US-0249208P
                                                                                                                                                                 2000US-0246528P
                                                                                                                                                                                                                                                                                                   17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                             17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
      13-0CT-2000;
13-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
                                                         20-OCT-2000;
20-OCT-2000;
20-OCT-2000;
01-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-2001;
                                                                                                      08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                               08-NOV-2000;
                                                                                                                                                                                                                                                         L7-NOV-2000;
                                                                                                                                                  08-NOV-2000;
                                                                                                                                                                                                                          17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                               17-NOV-2000;
17-NOV-2000;
                                                                                                                            08-NOV-2000;
                                                                                                                                           08-NOV-2000;
                                                                                                                                                               08-NOV-2000;
                                                                                                                                                                                              08-NOV-2000;
                                                                                                                                                                                                    08-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                   17-NOV-2000;
                                                                                                                                                                                                                                                17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                         08-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                       11-DEC-2000
                                                                                                                                                                                                                                          17-NOV-2000
```

Barash SC, Ruben SM; Rosen CA,

WPI; 2001-483232/52

Nucleic acids encoding 973 human testicular antigén polypeptides, useful for preventing, diagnosing and/or treating testicular cancer.

Claim 11; SEQ ID NO 1742; 766pp; English

The present invention provides the protein and coding sequences of 973

```
The present invention describes DNAs encoding hair keratin-associated proteins (KAP) of human origin, which bind to hair keratin. Also described: (1) DNA encoding KAPs of mouses origin; (2) proteins encoded by described: (1) DNA encoding KAPs of mouse origin; (2) proteins encoded by care the human and mouse DNA, and their partial peptides, and proteins derived from them by addition, deletion and/or substitution of one or more amino care from them by addition, deletion and/or substitution of one or more amino corrected from them by addition, deletion and/or substitution of one or more amino care from them by addition of the DNA encoding KAP; (4) peptides (6) or F; (5) fusion proteins and peptides containing these proteins and peptides (6) antibodies to the peptides together with a marker protein or peptides proteins and peptides; (6) antibodies to the correction or peptides (6) antibodies to the correction or containing the DNA encoding KAP; (1) northead antibodies; (8) expression vectors; (10) non-human animals which are knockout animals for KAP or which overexpress KAP; (11) screening cubstances promoting or inhibiting the binding of KAP to hair keratin, or their partial peptides or cells expressing them; (12) compounds their partial peptides or cells expressing them; (12) compounds compositions containing these compounds, or containing KAP or their
                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNAs encoding 39 Keratin-associated proteins localized on human chromosome 21, useful for screening binding and expression modifiers and as cosmetic and therapeutic agents for hair disorders.
human testicular antigens, and fragments of their genomic sequences. The sequences can be used in the treatment of cardiovascular, urinary system, respiratory, neurological and gastrointestinal disorders, infections, and particularly cancer, especially testicular cancers. The present sequence is a protein of the
                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hair; keratin-associated protein; KAP; mouse; keratin; toiletry;
therapeutic; hair growth promoter; hair disorder.
                                                                                                                                                                                                                         ;
0
                                                                                                                                                                              Score 39; DB 4; Length 108;
Pred. No. 89;
                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mouse hair keratin-associated-protein SEQ ID NO:122.
                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 7; SEQ ID NO 122; 352pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                       ADJ92263 standard; protein; 193 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UYKE-) UNIV KEIO.
(NIPR-) JAPAN SOC PROMOTION SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shimizu N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-2002; 2002WO-JP011851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-NOV-2001; 2001JP-00348050
                                                                                                                                                                                      69.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                 2 ISVPLSVPC 10
                                                                                                                                                                                                                                                                                            33 VSVPLSHPC 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-493307/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kudo J, Shibuya K,
                                                                                                                                                                                                  Local Similarity
es 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; ADJ92262
                                                                                                                                                 Sequence 108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003042387-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADJ92263;
                                                                                                             invention
                                                                                                                                                                                        Query Match
                                                                                                                                                                                                               Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                           ADJ92263
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
            8X88888X8
                                                                                                                                                                                                                                                                       à
```

```
The invention relates to Pseudomonas aeruginosa polypeptides and the polynucleotides encoding them. The sequences are useful in diagnosis and therapper of pathological conditions, as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from a bacterial infection, for evaluating a compound, such as a polypeptide, or the ability to bind a P. aeruginosa nucleic acid, as components of effective antibacterial targets, as targets for antibacterial drugs, including anti-P. aeruginosa drugs, as templates for recombinant or production of P. aeruginosa derived peptides or polypeptides, as target components for diagnosis and/or treatment of P. aeruginosa-caused infection, and in detection of P. aeruginosa sequences or other sequences of Pseudomonas species using biochip technology. Sequences or other sequences of Pseudomonas species using biochip technology. Sequences ABO67826-ABO84396 represent P. aeruginosa polypeptides of the invention. Note: The sequence data for this parent did not form part of the printed specification but was obtained in electronic format from USPTO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel isolated nucleic acid encoding Pseudomonas aeruginosa polypeptide, useful as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from bacterial infection.
partial peptides or (I) or (II), expression vectors for them, or host cells transformed by these vectors. KAP sequences can be used as hair growth promoters. The KAPs are useful as active ingredients in tolletry compositions (such as hair and beard growth improvers, hair colourants and hair conditioners) and in therapeutic compositions for hair disorders. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacterial infection; Pseudomonas aeruginosa infection; antibacterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                         Score 39; DB 7; Length 193;
Pred. No. 1.6e+02;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rubenfield MJ, Nolling J, Deloughery C, Bush D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 32454; 455pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pseudomonas aeruginosa polypeptide #15883.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABO83708 standard; protein; 244 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0074788P.
98US-0094190P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-00252991
                                                                                                                                                                                                                                                                                                                                                                                69.6%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91 CVSNPCSTPC 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-615309/58.
N-PSDB; ABD17279.
                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                      Sequence 193 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-1998;
27-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US6551795-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AB083708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABOB3708
XX
AC ABOB
AC 
              8888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

segdata.uspto.gov/seguence.html

Sequence 244 AA;

```
The invention relates to Pseudomonas aeruginosa polypeptides and the polynucleotides encoding them. The sequences are useful in diagnosis and therapper tharappy of pathological conditions, as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from a correctial infection, for evaluating a compound, such as a polypeptide, or the ability to bind a P. aeruginosa incleic acid, as components of effective antibacterial targets, as targets for antibacterial drugs, including anti-P. aeruginosa derived peptides or polypeptides, as target components for diagnosis and/or treatment of P. aeruginosa-caused infection, and in detection of P. aeruginosa sequences or other sequences of Pseudomonas species using biochip technology. Sequence ABOG7826-CC ABO84396 represent P. aeruginosa polypeptides of the invention. Note: The sequence data for this patent did not form part of the printed specification but, was obtained in electronic format from USPTO at
                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel isolated nucleic acid encoding Pseudomonas aeruginosa polypeptide, useful as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from bacterial infection.
                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                        Bacterial infection; Pseudomonas aeruginosa infection; antibacterial.
                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
    Length 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 306;
 Score 39; DB 7; Length 244
Pred. No. 2.1e+02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 39, DB 7; Length 306
Pred. No. 2.6e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bush
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 23169; 455pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nolling J, Deloughery C,
                                                                                                                                                                                                                                                                           Pseudomonas aeruginosa polypeptide #6598.
                                                                                                                                                                         ABO74423 standard; protein; 306 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GENO-) GENOME THERAPEUTICS CORP.
                                  5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     seqdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
69.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-00252991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0074788P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69.6%;
 Query Match
Best Local Similarity 60.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                        Pseudomonas aeruginosa.
                                                                1 CISVPLSVPC 10
                                                                                              24 CCSRPMAVPC 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CWSVPSSAPC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
7; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-615309/58.
N-PSDB; ABD07994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 306 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rubenfield MJ,
                                                                                                                                                                                                                                                                                                                                                                       US6551795-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                    18-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-JUL-1998;
                                                                                                                                                                                                                                           29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                      22-APR-2003
                                                                                                                                                                                                            ABO74423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7
                                                                                                                                             RESULT 14
                                                                ò
                                                                                            셤
                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human CV UGFPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide with at least one amino acid deleted prior peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior cocyclisation are used to interfere with angiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy, carebrovascular accident, post-angioplasty restenosis, head, heat or cold crauma, substance-induced neovascularisation or benign tumour, post-recovery carborovascular accident, post-angioplasty restenosis, head, heat or cold in a mammal least on adjudent dysfunction, diabetes induced neovascular sequelae, hypertenaion induced neovascular sequelae, or chronic liver in fection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in pertipheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF or -D and are also used in combination with a mati-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat and the contract of the con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 25; Page 47; 102pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-442248/47.
                                                                                       AAU04543;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            residues.
RESULT 15
                     AAU04543
```

Cendron A;

diabetic retinopathy

Sequence 11 AA

```
Human, VEGF; vascular endothelial growth factor; anglogenesis; neovisatellarisation; lymphanglogenesis; psoriassis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
1. .11
/note= "This bond cyclises the peptide"
AAU04543 standard; peptide; 11 AA
                                                                                                                                                                     VEGF based monocyclic peptide 21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JAN-2001; 2001WO-US001533
                                                                                                              26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                            Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
```

```
7;
                         Gaps
                         ä
DB 4; Length 11;
                         0; Indels
68.8%; Score 38.5; D 63.6%; Pred. No. 10; iive 3; Mismatches
            Best Local Similarity 63.6
Matches 7; Conservative
                                                  1 CISVPL-SVPC 10
                                                                   ||::|| |:||
CITIPLTSLPC 11
  Query Match
                                                    8
                                                                          g
```

1, 2005, 09:18:24

completed: April ne : 77.4794 secs

Search cor Job time

```
PRIOR FILING DATE: 2000-01-18
PRIOR PEDLICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
LENGTH: 10
                                                                                                                                                                                                                    April 1, 2005, 09:26:18 ; Search time 245.753 Seconds (without alignments) 13.493 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.ppp:*
| Cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1413372
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1413372 seqs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Applications AA:*
                                                                                                                                                        OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-13
56
1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                    Title:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Sequence 13, Appl	Sequence 7, Appli	sequence 23, Appl	Sequence 174203,	quence 14, Appl	Sequence 26, Appl	Sequence 264847,	Sequence 25, Appl	Seguence 167987,	equence 4192, Ap	Sequence 58210, A	equence 4485, Ap	Sequence 50298, A
	Des	Se	Se	Se	S	Se	Se	S	Se	S	S	ຜ	S	S
SUMMARIES	ID	US-09-761-636A-13	US-09-761-636A-7	US-09-761-636A-23	US-10-437-963-174203	US-09-761-636A-14	US-09-761-636A-26	US-10-424-599-264847	US-09-761-636A-25	US-10-437-963-167987	US-09-764-891-4192	US-10-425-114-58210	US-09-764-891-4485	US-10-425-114-50298
	DB	ה	σ	თ	16	σ	σ	15	σ	16	10	15	10	15
	Query Match Length DB	10	11	11	140	σ	11	84	11	279	77	83	108	190
de	Query Match	100.0	81.2	77.7	76.8	74.1	74.1	73.2	72.3	71.4	9.69	9.69	9.69	9.69
	Score	99	45.5	43.5	43	41.5	41.5	41	40.5	40	39	39	39	39
	Result No.	7	7	٣	4	ß	9	7	80	6	10	11	12	13

ò

Gaps

ö

100.0%; Score 56; DB 9; Length 10; 100.0%; Pred. No. 0.017; cive 0; Mismatches 0; Indels

Query Match
Best Local Similarity 100.
Matches 10; Conservative

TYPE: PRT
CORGANISM: Homo sapiens
US-09-761-636A-13

ò g RESULT 2 US-09-761-636A-7

14	38.5		11	σ	US-09-761-636A-24	equence 2
7.	~	67.9	71	σ	-09-864-761-35	3570
91.			٠ 4	, L	5-10-424-599-22012	Semience 220123
17		67.5		1	1071-596-1401	a Juai Da
. e	2 6	0.75	222		047-2238	22.00
9 5			465	1 1	TIS-10-335-977-7910	0100
9 6			יי מי	1 -	TR-10-335-977-7910	Segience 7911, Ap
3 5		٠,	2,7	, ,	TIC-10-335-077-7012	7012
1 6		٠.	0 0	1 4	TIC. 10-427-062-106060	7070
7 6		٠,	0607	9 4	701-E0296	,00000
5,5		٠,	7,7	9 1	709-TO/	86779
24		٠.	134	1.5	260A-4531	4531,
25		٠	355	76	963-12585	Sequence 125857,
56		9	420	16	963-1424	Sequence 142446,
27		9	769	13	US-10-087-110-6	Sequence 6, Appli
28		9	875	13	US-10-087-110-2	Sequence 2, Appli
29		4	46	15	599-2849	Sequence 284943,
30		4	59	16	0-437-963-19958	Sequence 199587,
31		4	64	σ	50-754	Sequence 754, App
32		64.3	70	14	US-10-029-386-29825	Sequence 29825, A
33		4	16	σ	872-268	Seguence 268, App
34		4	26	10	9-8	Sequence 268. App
3.5			82	9	-10-437-963-10664	Semience 106647.
3.6		٠ 4	100		-424-599-1844	Semience 184465
		• <		1 0	00-015-040-0	١,
9 0			1 -	, ,	-03-013- 24 0-2 8-10-767-701-5060	CONSTRUCT A PARTY
9 6		ŗ.	2 1	1 1	76966-101-191-01-	19000
66.			717	12	-424-599-1985	1985
40			230	15	-10-104-047-3554	Sequence 3554, Ap
41		64.3	241	15	-10-425-114-600	6008
42		64.3		15	US-10-369-493-7846	
43		64.3	699	70	US-09-790-852-7	Sequence 7, Appli
44		4	m		-10-437-963-11	1191
4.5		63.4	80	133	-10-052-586-576	576.
7	·	1			200	ימתרוונר היי
					ALIGNMENTS	
£ ###		•				
TIS-09-761	1-6368-13	-13				
40,000	120 00	Annlina	PII uoit	,60/	476767	
. Patent	No. US	equence 13, Aprilation 03/03/01030A	5218A1		G000000	
GENERA	L INFO	GENERAL INFORMATION:				
, APPLI	CANT	APPLICANT: ACHEN, Marc	arc			
T.IGGA .	APPLICANT.	STACKER	Steven	-		
APPLI	APPLICANT:	HUGHES.	Ω.	ים		
APPLI	CANT	CENDRON	Angel	i re		
TITLE	TITLE OF IN	VENTION:	VEGF-D	/VE	OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC	INHIBITOR
FILE	REFERE	FILE REFERENCE: 1064/48505	4/48505	Achen	eta	
; CURRE	INT APPI	CURRENT APPLICATION NUMBER: US/09	NUMBER	Ď 	176	
; CURRENT	NT FIL	FILING DATE:	П	-01	œ	
PRIOR	APPLI(PRIOR APPLICATION NUMBER:		SD	60/176,293	
PRIOR	FILING	FILING DATE:	_	8		

```
Page 2

APPLICANT: Zhou, Yihua

APPLICANT: Cao, Yongwei

APPLICANT: Wei

APPLICANT: Wei

APPLICANT: Barbazuk, Brad

APPLICANT: Li, Ping

ITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

ITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

ITLE REFERENCE: 38-21(5321)B

CURRENT APPLICATION NUMBER: US/10/437,963

CURRENT FILING DATE: 2003-05-14

NUMBER OF SEQ ID NOS: 204966

SEQ ID NO 174203

LENGTH: 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 70.v.
7, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 90.0
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      115 CSSTPLTVPC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CISVPL-VPC 9
                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-761-636A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-761-636A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 23, Application US/09761636A
; Sequence 23, Application US/09761636A
; Patent No. US20020065218A1
; GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
, APPLICANT: STACKER, Steven
; APPLICANT: GENDRON, Angela
; TILLE REFERENCE: 1064/4856 Achen et al
; TILLE REFERENCE: 1064/4856 Achen et al
; CURRENT APPLICATION NUMBER: US/09/761,636A
; CURRENT APPLICATION NUMBER: US 60/176,293
; PRIOR FILING DATE: 2000-01-18
; PRIOR FILING DATE: 2000-01-18
; PRIOR FILING DATE: 2000-05-16
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 23
                                                                                                                                                                              APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: HUGHEN, Richard
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
TITLE OF INVENTION: VEGF-D/VEGF-PEPTIDOMIMETIC INHIBITOR
FILE REPERENCE: 1064/48505 Achen et al
FURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 7
LENGTH: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 9; Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 45.5; DB 9;
Pred. No. 0.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 43.5; Di
Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                           7, Application US/09761636A
5. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77.7%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81.2%;
90.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: synthetic construct
US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 81.8
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CLSVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-761-636A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
```

```
ï
                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 14, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:
APPLICANT: ACHEN, Marc

APPLICANT: ACHEN, Marc

APPLICANT: ACHEN, Marc

APPLICANT: ACHEN, Marc

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VGGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REFRENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US 60/176,536A

CURRENT PILING DATE: 2001-01-18

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR APPLICATION NUMBER: US 60/204,590

PRIOR FILING DATE: 2000-05-16

NUMBER OF SEQ ID NOS: 34

SOGTWARE: PATENTIN VERSION 3.0

SEQ ID NO 14
                                                                                                                                                        Score 43; DB 16; Length 140;
Pred. No. 27;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                         ; OTHER INFORMATION: Clone ID: PAT_MRT4530_72167C.1.pep
US-10-437-963-174203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 41.5; DB 9;
Pred. No. 1.3e+06;
0; Mismatches 0;
NAME/KEY: unsure

DCATION: (1)..(140)

CHER INFORMATION: unsure at all Xaa locations

FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
US-09-761-636A-26
US-09-761-636A-26
Sequence 26, Application US/09761636A
Patent No. US20020065218A1
GENERAL INFORMATION:
                                                                                                                                                            76.8%;
70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74.1%;
90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: ACHEN, Marc
```

; Sequence 174203, Application US/10437963; Publication No. US20040123343A1; GENERAL INFORMATION:

US-10-437-963-174203

APPLICANT: La Rosa, Thomas J. APPLICANT: Kovalic, David K.

```
APPLICANT: Barbazuk, Brad
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 167987
LENGTH: 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4192, Application US/09764891
Publication No. US20030077808A1
GERREAL INFORMATION:
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PC006
CURRENT APPLICATION NUMBER: US/09/764,891
CURRENT FILING DATE: 2001-01-17
Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 10231
                                                                                                                                                                                                                                                                                          Score 40.5; DB 9; Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 279;
                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , OTHER INFORMATION: Clone ID: PAT_MRT4530_66546C.l.pep
US-10-437-963-167987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 40; DB 16;
Pred. No. 1.6e+02;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1)...(279)
OTHER INFORMATION: unsure at all Xaa locations FEATURE:
                                                                                                                                                                                                                                                                                                              Pred. No. 5.4;
2; Mismatches
  PRIOR APPLICATION NUMBER: US 60/176,293 PRIOR PLING DATE: 2000-01-18 PRIOR APPLICATION NUMBER: US 60/204,590 PRIOR FILING DATE: 2000-05-16 NUMBER OF SEQ ID NOS: 34 SOFTWARE: Patentin version 3.0 SEQ ID NO 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 167987, Application US/10437963 Publication No. US20040123343A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
APPLICANT: Wu, Wei
APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
                                                                                                                                                                                                                                                                                     72.3%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71.4%;
77.8%;
                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 72.7
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                |||:|: ||||
1 CISLPISSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           175 CINVPESVP 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Oryza sativa
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-437-963-167987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-09-764-891-4192
                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 264847, Application US/10424599

Sequence 264847, Application US/10424599

Publication No. US20040031072A1

GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE SPERENCE: 38-21(53.23)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684

SEQ ID NO 264847

LENGTH: 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
APPLICANT: STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: CHORNON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
TITLE REPERENCE: 1064/48505 Achen et al
FILE REPERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PALENTIN VERSION 3.0
SOFTWARE: PALENTIN VERSION 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
US-09-761-636A-25
i Sequence 25. Application US/09761636A
; Patent No. US20020065218A1
; GENERAL INFORMATION:
i APPLICANT: ACHEN, Marc
; APPLICANT: HUGHES, Rieven
; APPLICANT: CENDRON, Angela
; TILE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
; TILE REFERENCE: 1064/48505 Achen et al
; CURRENT APPLICATION VUMBER: US/09/761,636A
; CURRENT FILING DATE: 2001-01-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                       74.1%; Score 41.5; DB 9; Length 11; 72.7%; Pred. No. 3.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 41; DB 15; Length 84; Pred. No. 34; 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Clone ID: PAT_MRT3847_81177C.1.pep
US-10-424-599-264847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 70.0%;
Matches 7; Conservative 2
                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |:|||| :|||
1 CVSVPLTTVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |:|| |:|||
24 CVSVFLTVPC 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
```

ô

ò 요

```
TYPE: PRT
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-425-114-50298
                                                                                                                                                                                                                                                   NAME/KEY: SITE
LOCATION: (93)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Screen, Steven E
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Number: us/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 58210
LENGTH: 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                   COTATION: (38)
COTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEX: SITE
LOCATION: (65)
COTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-891-4192
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4485, Application US/09764891
; Publication No. US20030077808A1
; Publication No. US20030077808A1
; GENERAL INFORMATION:
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
; FILE REFERENCE: PC006
; CURRENT FILING DATE: 2001-01-17
; URRENT FILING DATE: 2001-01-17
; FILE REFERENCE: PLOSE 1021
; SOFTWARE: Patentin Ver. 2.0
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NOS 10231
; TYPE: PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69.6%; Score 39; DB 15; Length 83; 75.0%; Pred. No. 69; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                  69.6%; Score 39; DB 10; Length 77; 40.0%; Pred. No. 64;
                                                                                                                                                                                                                                                                                                                                                               2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , OTHER INFORMATION: Clone ID: LIB84-029-E3_FLI.pep US-10-425-114-58210
                                                                                                                                                                                                                                                                                                                                                               4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 58210, Application US/10425114 Ublication No. US20040034888A1 GENERAL INFORMATION:

APPLICANT: Liu, Jingdong
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                               4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                  |:: |:: ||
47 CLNAPIRIPC 56
                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 SVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :||||:||
68 TVPLSIPC 75
                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 4; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
US-10-425-114-58210
                                                                                                         FEATURE:
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
US-09-764-891-4485
                  SEQ ID NO 4192
LENGTH: 77
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
APPLICANT: Liu, Jingdong
APPLICANT: Liu, Jingdong
APPLICANT: Liu, Jingdong
APPLICANT: Screen, Steven E
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Lao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313) B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT PILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 50298
LENGTH: 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
NAME/KEY: SITE
LOCATION: (49)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
LOCATION: (51)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                         LOCATION: (73)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-764-891-4485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
APPLICANT: CEDDRON, ADAP
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 69.6%; Score 39; DB 10; Length 108; Best Local Similarity 77.8%; Pred. No. 89; Matches 7; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69.6%; Score 39; DB 15; Length 190; 75.0%; Pred. No. 1.6e+02; Live 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Clone ID: LIB189-012-E9_FLI.pep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 50298, Application US/10425114
Publication No. US20040034888A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 24, Application US/09761636A
Patent No. US20020065218A1
GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ISVPLSVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33 VSVPLSHPC 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :||||:||
175 TVPLSIPC 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 SVPLSVPC 10
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                          FEATURE:
OTHER INFORMATION: MAP TO AL078621.19
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.91
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 0.94
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.7
OTHER INFORMATION: EXTRESSED IN LUNG, SIGNAL = 2.7
OTHER INFORMATION: EST HUMAN HIT: BF125501.1, EVALUE 1.70e+00
US-09-864-761-35705
                                                                                                                                                                                                                                                                                                                                                                                        Query Match 67.9%; Score 38; DB 9; Length 71; Best Local Similarity 77.8%; Pred. No. 85; Matches 7; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Search completed: April 1, 2005, 10:36:34
Job time: 245.753 secs
                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51 CİSVPLPTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRICEARY NORMATION:
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HAUZel, David K.
APPLICANTON WOMBER: US/09/864, 761
PRIOR PELICANTON WOMBER: US/09/864, 761
PRIOR PELICANTON WOMBER: US/09/83, 366
PRIOR PELICANTON WOMBER: US/09/83, 369
PRIOR PELICANTON WOMBER: US/09/83, 469
PRIOR PELICANTON WOMBER: US/09/84, 469
PRIOR PELICANTON UNDERE: US/09/84, 469
PRIOR PELICANTON 
                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                                             Score 38.5; DB 9; Length 11;
Pred. No. 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 49117
SOFTWARE Annomax Sequence Listing Engine vers: 1.1
SEQ ID NO 35705
                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 11;
3; Mismatches
PRIOR FILING DATE: 2000-01-18
PRIOR PELICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SECTWARE: Patentin version 3.0
SEQ ID NO 24
LENGTH: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 35705, Application US/09864761
Patent No. US20020048763A1
                                                                                                                                                                                                                                                                                                                                                         68.8%;
63.6%;
                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-24
                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 63.6
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | | | :: | | : | | | CITIPLTSLPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
```

THIS PAGE BLANK (USPTO)

us-09-761-636a-12.open.rapb

```
April 1, 2005, 09:26:18; Search time 147.452 Seconds (without alignments) 13.493 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Applications AA:*

1: \cgn2_6/ptodata/2/pubpaa/PtoT_PubCOMB.pep:*

2: \cgn2_6/ptodata/2/pubpaa/PtoT_Baw PUB.pep:*

3: \cgn2_6/ptodata/2/pubpaa/PtoT_Baw PUB.pep:*

4: \cgn2_6/ptodata/2/pubpaa/USO6_NBW PUB.pep:*

5: \cgn2_6/ptodata/2/pubpaa/USO6_NBW PUB.pep:*

5: \cgn2_6/ptodata/2/pubpaa/USOB_NBW PUB.pep:*

6: \cgn2_6/ptodata/2/pubpaa/USOB_NBW PUB.pep:*

7: \cgn2_6/ptodata/2/pubpaa/USOB_NBW PUB.pep:*

8: \cgn2_6/ptodata/2/pubpaa/USOB_NBW PUB.pep:*

9: \cgn2_6/ptodata/2/pubpaa/USOB_PUBCOMB.pep:*

10: \cgn2_6/ptodata/2/pubpaa/USOB_PUBCOMB.pep:*

11: \cgn2_6/ptodata/2/pubpaa/USOB_PUBCOMB.pep:*

11: \cgn2_6/ptodata/2/pubpaa/USOB_NBW PUB.pep:*

13: \cgn2_6/ptodata/2/pubpaa/USOB_PUBCOMB.pep:*

14: \cgn2_6/ptodata/2/pubpaa/USOB_PUBCOMB.pep:*

15: \cgn2_6/ptodata/2/pubpaa/USIOP_PUBCOMB.pep:*

16: \cgn2_6/ptodata/2/pubpaa/USIOP_PUBCOMB.pep:*

17: \cgn2_6/ptodata/2/pubpaa/USIOP_PUBCOMB.pep:*

18: \cgn2_6/ptodata/2/pubpaa/USIOP_PUBCOMB.pep:*

19: \cgn2_6/ptodata/2/pubpaa/USIOP_PUBCOMB.pep:*

10: \cgn2_6/ptodata/2/pubpaa/USIOP_PUBCOMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-12
38
1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                    Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Sequence 12, Appl	Sequence 164353,	Sequence 122, App	Sequence 9, Appli	Sequence 2, Appli	Sequence 47, Appl	Sequence 2286, Ap	Sequence 46, Appl	Sequence 45, Appl	Sequence 198429,	Sequence 3057, Ap	Sequence 1404, Ap	Sequence 1403, Ap
2011	ΩΙ	US-09-761-636A-12	US-10-424-599-164353	US-09-826-734-122	US-09-799-514-9	US-10-016-248-2	US-10-016-248-47	US-10-408-765A-2286	US-10-016-248-46	US-10-016-248-45	US-10-424-599-198429	US-10-094-749-3057	US-10-741-600-1404	US-10-741-600-1403
	DB	6	15	10	О	15	12	16	15	15	15	15	17	17
	% Query Match Length DB ID	9	45	175	613	3104	3389	3389	3508	3564	127	310	1232	1420
	% Query Match	100.0	100.0	94.7	94.7	94.7	94.7	94.7	94.7	94.7	92.1	92.1		
	Score	38	38	36	36	36	36	36	36	36	35	35	35	32
	Result No.	1	7	m	4	2	9	7	8	თ	10	11	12	13

RESULT 2 US-10-424-599-164353

Sequence 1405, Ap Sequence 2, Appli Sequence 25, Appli Sequence 1, Appli Sequence 17858, Sequence 190243, Sequence 190243, Sequence 190243, Sequence 252356, Sequence 217717, Sequence 217717, Sequence 217717, Sequence 20780, A Sequence 50640, A Sequence 50780, A Sequence 50780, A Sequence 212, Appl Sequence 210, Appl Sequence 20127, Sequence 210, Appl	Sequence 56027, A Sequence 274520, Sequence 46679, A
US-10-741-600-1405 US-10-783-311-2 US-10-295-027-663 US-10-783-311-1 US-10-783-311-1 US-10-783-311-1 US-10-741-600-1406 US-10-741-600-1406 US-10-424-599-25356 US-10-424-599-198470 US-10-424-599-198470 US-10-424-599-198470 US-10-424-599-198470 US-10-424-599-198470 US-10-424-599-17017 US-10-424-599-17017 US-10-425-114-50640 US-10-262-839-212 US-10-262-839-212 US-10-262-839-210 US-10-262-839-210 US-10-262-839-210 US-10-262-839-210 US-10-262-839-210 US-10-437-963-200127 US-10-437-963-200127 US-10-444-599-240922 US-10-444-599-240922	US-10-767-701-56027 US-10-424-599-274520 US-09-864-761-46679
71	16 15 9
1627 1627 1627 1627 1627 1627 1627 1627	113 117 125
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	84.2 84.2 84.2
	322
4 4 4 4 8 8 8 8 9 7 8 8 8 8	4 4 4 ዬ 4 ሺ

ALIGNMENTS

```
RESULT 1

US-09-761-636A-12

US-09-761-636A-12

US-09-761-636A-12

Sequence 12, Application US/09761636A

Patent No. US2002005208A1

GENERAL INFORMATION:

APPLICANT: ATHORN. Marc

APPLICANT: STACKER, Steven

APPLICANT: HUGHES, Richard

APPLICANT: THORN. VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REFERENCE: 1064/4850S Achen et al

FILE REFERENCE: 1064/4850S Achen et al

FILE REFERENCE: 1064/4850S Achen et al

FILE REPERENCE: 1064/4850S Achen et al

FILE REPERENCE: 10604/4850S Achen et al

FILE REPERENCE: 1060-01-18

PRIOR FILING DATE: 2000-05-16

NUMBER: US 60/204,590

PRIOR FILING DATE: 2000-05-16

NUMBER: PATHOR PATHORN NUMBER: US 60/204,590

PRIOR FILING DATE: 2000-05-16

NUMBER: PATHORN SEQ ID NOS: 34

SEQ ID NO 12

LENGTH: 6

LENGTH: 6

US-09-761-636A-12

QUETY MATCh

Best Local Similarity 100.0%; Score 38; DB 9; Length 6;

Best Local Similarity 100.0%; Pred. No. 1.38+06;

MATCHES 6; CONSELVATIVE 6

OV

1 CVPLTC 6

DD

1 CVPLTC 6
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:

APPLICANT: ADDEDONG et al.

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
FILE REFERENCE: 21402-218

CURRENT APPLICATION NUMBER: US/10/016,248

CURRENT FILING DATE: 2002-09-20

PRIOR PLICATION NUMBER: 60/291,037

PRIOR PLILING DATE: 2001-02-18

PRIOR FILING DATE: 2001-02-16

PRIOR PLILING DATE: 2001-02-14

PRIOR PLILING DATE: 2000-12-14

PRIOR PLILING DATE: 2000-12-14

PRIOR PLILING DATE: 2000-10-03

PRIOR PLILING DATE: 2001-06-08

PRIOR PLILING DATE: 2001-06-08

PRIOR PLILING DATE: 2001-00-01

PRIOR PLILING DATE: 2001-10-01

PRIOR PLILING DATE: 2001-10-01

PRIOR PLILING DATE: 2001-10-01

PRIOR PLILING DATE: 2001-00-01

PRIOR PLILING DATE: 2001-00-01

PRIOR PLILING DATE: 2001-00-01

PRIOR PLILING DATE: 2001-00-02

SEQ ID NOS: 167

SEQ ID NOS: 167

FENDAMER: PARENTIN VEF. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94.7%; Score 36; DB 15; Length 3104;
83.3%; Pred. No. 1.5e+03;
iive 1; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Alsobrook et al. TILE OF INVENTION: Proteins and Nucleic Acids Encoding Same FILE REFERENCE: 21402-218 FILE REFERENCE: 21402-218 FURRENT APPLICATION NUMBER: US/10/016,248
                                                                                                                                                                                                                                                                                                                                                                            Length 613;
                                                                                                                                                                                                                                                                                                                                                                          94.7%; Score 36; DB 9; 183.3%; Pred. No. 3.5e+02; tive 1; Mismatches 0
  CURRENT APPLICATION NUMBER: US/09/799,514
CURRENT FILING DATE: 2001-03-07
PRIOR APPLICATION NUMBER: PCT/US00/23662
PRIOR FILING DATE: 2000-08-29
PRIOR APPLICATION NUMBER: 60/152,248
PRIOR APPLICATION NUMBER: 1999-09-03
NUMBER OF SEQ ID NOS: 19
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-016-248-47
; Sequence 47, Application US/10016248
; Publication No. US20040033491A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 2, Application US/10016248
; Publication No. US20040033491A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 83.5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 83.3
                                                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-799-514-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1||:||
2486 CVPITC 2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264 CVPITC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC 6
                                                                                                                                                                                                                                         LENGTH: 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-016-248-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-016-248-2
                                                                                                                                                                                                                      SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-799-514-9
Sequence 9, Application US/09799514
Patent No. US2002065220A1
GENERAL INFORMATION:
APPLICANT: Young et al.
TITLE OF INVENTION: Immunoglobulin Superfamily Polynucleotides, Polypeptides, and An.
FILE REFERENCE: PT015P1
Sequence 164353, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 164353
LENGTH: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 12., Application US/09826734

Publication No. US20030017457A1

GENERAL INFORMATION:
APPLICANT: Ferrandes, Elma R.
APPLICANT: Vernet, Corine A.M.
APPLICANT: Mishra, Vishnu S.
APPLICANT: Shimkets, Richard A.
APPLICANT: Shimkets, Richard A.
APPLICANT: Shimkets, Ranch Bryan D.
APPLICANT: Shimkets, Ramesha
TITLE OF INVENTION: Novel Polynucleotides and Polypeptides Encoded Thereby
FILE REPRENCE: 15966-754
CURRENT APPLICATION NUMBER: US/09/826,734
CURRENT FILING DATE: 2001-04-05
PRIOR PILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 270

SOFTWARE: FRRUSE PRESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 38; DB 15; Length 45; Best Local Similarity 100.0%; Pred. No. 15; Matches 6; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 94.7%; Score 36; DB 10; Length 175; Best Local Similarity 83.3%; Pred. No. 1.2e+02; Matches 5; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Clone ID: PAT_MRT3847_119429C.1.pep
US-10-424-599-164353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: homo sapiens
US-09-826-734-122
                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        117 CVPITC 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34 CVPLTC 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-826-734-122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
```

ò g

ò

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERALL INFORMATION:

GENERAL INFORMINON:

TILLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
FILE SPERENCE: 2.1402-218

CURRENT APPLICATION UNMBER: US/10/016,248

CURRENT PILING DATE: 2002-09-20

FRIOR PAPPLICATION NUMBER: 60/291,037

PRIOR APPLICATION NUMBER: 60/291,037

PRIOR APPLICATION NUMBER: 60/291,037

PRIOR APPLICATION NUMBER: 60/297,173

PRIOR APPLICATION NUMBER: 60/297,173

PRIOR APPLICATION NUMBER: 60/297,173

PRIOR APPLICATION NUMBER: 60/297,173

PRIOR APPLICATION NUMBER: 60/309,268

PRIOR FILING DATE: 2001-07-031

PRIOR APPLICATION NUMBER: 60/315,639

PRIOR PELING DATE: 2001-07-01

PRIOR PILING DATE: 2001-10-01

PRIOR FILING DATE: 2001-10-01

PRIOR FILING DATE: 2001-10-01

PRIOR FILING DATE: 2001-10-01

PRIOR FILING DATE: 2010-10-01

NUMBER: 67/315,639

NUMBER: 67/315,639

NUMBER: PatentIN Ver: 2.1

SOFTWARE: PatentIN Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.7%; Score 36; DB 15; Length 3564;
83.3%; Pred. No. 1.7e+03;
live 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 3508;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 36; DB 15; Length 35
Pred. No. 1.7e+03;
1; Mismatches 0; Indels
                                                        CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: 60/254,329
PRIOR FILING DATE: 2000-12-08
PRIOR PELING DATE: 2000-12-08
PRIOR PELING DATE: 2000-12-08
PRIOR FILING DATE: 2001-05-15
PRIOR PILING DATE: 2001-05-14
PRIOR PILING DATE: 2001-06-08
PRIOR PLING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: 60/297,173
PRIOR APPLICATION NUMBER: 60/309,258
PRIOR PILING DATE: 2001-07-31
PRIOR FILING DATE: 2001-00-01
PRIOR FILING DATE: 2001-10-01
PRIOR PILING DATE: 2001-10-01
PRIOR FILING DATE: 2001-00-1
PRIOR FILING DATE: 2001-06-1
PRIOR PILING DATE: 2001-08-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-016-248-45
Sequence 45, Application US/10016248
Publication No. US20040033491A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.7%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 83.3
Matches 5; Conservative
                 21402-218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2677 CVPITC 2682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2733 CVPITC 2738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-016-248-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-016-248-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Groth, Soumitra S.
APPLICANT: Groth, Soin D.
APPLICANT: Faby, Boin D.
APPLICANT: Taby, Boin D.
APPLICANT: Taylor, Steven W.
APPLICANT: Taylor, Steven W.
APPLICANT: Taylor, Steven W.
APPLICANT: Warnock, Dale B.
TITLE OF INVENTION: IDENTIFIED IN THE MITOCHONDRIAL PROTEOME FILE REFERENCE: 660081465
CURRENT APPLICATION NUMBER: US,10/408,765A
CURRENT APPLICATION NUMBER: US,10/408,765A
NUMBER OF SEQ D NOS: 3077
SOFFWARE PARLSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 36; DB 15; Length 3389;
Pred. No. 1.6e+03;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
94.7%; Score 36; DB 16; Length 3389;
Best Local Similarity 83.3%; Pred. No. 1.6e+03;
Matches 5; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-016-248-46
Sequence 46, Application US/10016248
Publication No. US20040033491A1
GENERAL INFORMATION:
APPLICANT: Alsobrook et al.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: 60/254,329
PRIOR FILING DATE: 2000-12-08
PRIOR PILING DATE: 2000-12-08
PRIOR FILING DATE: 2001-05-15
PRIOR PELICATION NUMBER: 60/291,037
PRIOR PELICATION NUMBER: 60/297,173
PRIOR PELICATION NUMBER: 60/297,173
PRIOR FILING DATE: 2000-12-14
PRIOR PELING DATE: 2001-06-08
PRIOR FILING DATE: 2001-06-01
PRIOR PILING DATE: 2001-07-31
PRIOR PILING DATE: 2001-10-01
PRIOR PILING DATE: 2001-08-29
NUMBER OF SEQ ID NOS: 167
SEQ ID NO 47
LENGTH: 3389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 2286, Application US/10408765A; Publication No. US20040101874A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94.7%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 83.3
....hes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-016-248-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2677 CVPITC 2682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2677 CVPITC 2682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-408-765A-2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-408-765A-2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 2286
```

ð

g

```
Query Match 92.1
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
CORGANISM: Homo sapiens
US-10-741-600-1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
CORGANISM: Homo sapiens
US-10-741-600-1404
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-094-749-3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1203 CVPVTC 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1203 CVPVTC 1208
                                                                                                                                                                                                             |:||||
262 CLPLTC 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTC 6
                                                                                                                                                                                   1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-10-741-600-1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                        ò
                                                                                                                                                                                                                             엄
                                                                                Sequence 198429, Application US/10424599
Sequence 198429, Application US/10424599
Publication No. US2004003107241
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21 (53223)
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 198429
LENGTH: 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92.1%; Score 35; DB 15; Length 127; 83.3%; Pred. No. 1.3e+02; Live 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Clone ID: PAT_MRT3847_21205C.1.pep
US-10-424-599-198429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: unsure
LOCATION: (1)..(127)
OTHER INFORMATION: unsure at all Xaa locations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: SEKI, NACHIKO
APPLICANT: SEKI, NACHIKO
APPLICANT: SEKI, NACHIKO
APPLICANT: OYSHIKAMA, TSUTOMU
APPLICANT: OYSHIKAMA, TSUTOMU
APPLICANT: NACHARI, KENJI
APPLICANT: NACHARI, KENJI
APPLICANT: NACHARI, KENJI
APPLICANT: NACHARI, KENJI
APPLICANT: NASUHIKO
TITILE REFERENCE: 084335/0160
CURRENT APPLICATION NUMBER: 08/10/094,749
CURRENT APPLICATION NUMBER: 60/350,435
PRIOR APPLICATION NUMBER: 102 2001-324
PRIOR APPLICATION NUMBER: 12001-324
PRIOR APPLICATION NUMBER: 12001-328381
PRIOR APPLICATION NUMBER: 2001-328381
PRIOR FILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3057, Application US/10094749 Publication No. US20030219741A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: ISOGAI, TAKAO
APPLICANT: SUGIXAMA, TOWOYASU
APPLICANT: OTSUKI, TETSUJI
APPLICANT: OTSUKI, TETSUJI
APPLICANT: SATO, HIROYUKI
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISONO, YUUKO
APPLICANT: HIO, YURI
APPLICANT: OTSUKA, KAORU
APPLICANT: OTSUKA, KAORU
APPLICANT: OTSUKA, KAORU
APPLICANT: IRIE, RYOTARO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 92.1
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116 CLPLTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-10-094-749-3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
Squence 1403, Application US/10741600

Publication No. US20050026169A1

GENERAL INFORMATION:

APPLICANT: CARGILL, Michele et al.

APPLICANT: CARGILL, Michele et al.

TITLE OF INVENTION: MYCCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF

FILLE REPRENCE: CLO01499

CURRENT APPLICATION NUMBER: US/10/741,600

CURRENT PILING DATE: 2003-12-22

NUMBER OF SEQ ID NOS: 73997

SEQ ID NO 1403

LENGTH: 1420
                                                                                                                                                                                                                                                             Sequence 1404, Application US/10741600

Sequence 1404, Application US/205026169A1

Publication No. US20050026169A1

Publication No. US20050026169A1

Publication No. US20050026169A1

TITLE OF INVENTION:

APPLICANT: CARGILL, Michele et al.

TITLE OF INVENTION: MYCCARDIAL INPARCTION, METHODS OF DETECTION AND USES THEREOF TITLE REFERENCE: CL001499

CURRENT PAPLICATION NUMBER: US/10/741,600

CURRENT FILING DATE: 2003-12-22

NUMBER OF SEQ ID NOS: 73997

SEQ ID NO 1404

LENGTH: L1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 92.1%; Score 35; DB 17; Length 1232; Best Local Similarity 83.3%; Pred. No. 9.8e+02; Matches 5; Conservative 1; Mismatches 0; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match

92.1%; Score 35; DB 17; Length 1420;
Best Local Similarity 83.3%; Pred. No. 1.1e+03;
Matches 5; Conservative 1; Mismatches 0; Indels
Length 310;
  Score 35; DB 15;
Pred. No. 2.9e+02;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-10-741-600-1405
US-10-741-600-1405
Squence 1405, Application US/10741600
Publication No. US20050026169A1
  92.1%;
83.3%;
```

```
GENERAL INFORMATION:

APPLICANT: CARGILL, Michele et al.

TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH

TITLE OF INVENTION: GENETIC POLYMORPHISMS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001499

CURRENT APPLICATION NUMBER: US/10/741,600

CURRENT APPLICATION NUMBER: US/10/741,600

CURRENT FILING DATE: 2003-12-22

NUMBER OF SEQ ID NOS: 73997

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 1405

LENGTH: 1420
                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92.1%; Score 35; DB 17; Length 1547; 83.3%; Pred. No. 1.2e+03; Arive 1; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                  Query Match
92.1%; Score 35; DB 17; Length 1420;
Best Local Similarity 83.3%; Pred. No. 1.1e+03;
Matches 5; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2, Application US/10783311
; Sequence 2, Application US/10783311
; Publication No. US20050009136A1
; GENERAL INFORMATION:
; APPLICANT: Nixon, Andrew
; APPLICANT: Nixon, Andrew
; APLICANT: Nixon, Andrew
; TILE REFERENCE: 10280-059001
; CURRENT APPLICATION NUMBER: US/10/783,311
; CURRENT FILING DATE: 2004-02-19
; PRIOR APPLICATION NUMBER: US 60/448,515
; PRIOR FILING DATE: 2003-02-19
; NUMBER OF SEQ ID NOS: 394
; SCO ID NO 2
; SEQ ID NO 2
; LENGTH: 1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                          TYPE: PRT
CORGANISM: Homo sapiens
US-10-741-600-1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
US-10-783-311-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1203 CVPVTC 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1330 CVPVTC 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
US-10-783-311-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

Search completed: April 1, 2005, 10:36:34 Job time : 147.452 secs

g

(UT920) ANAJA 3DA9 21HT

```
Sequence 4, Application US/10246658

Patent No. 6790660

GENERAL INFORMATION:
APPLICANT: V. Xuanchuan
APPLICANT: Wilganowski, Nathaniel L.
APPLICANT: William Millant: Will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
US-10-246-658-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2938, Ascquence 2938, Applia Sequence 2, Applia Sequence 11, Applia Sequence 2, Applia Sequence 2, Applia Sequence 1258, Applia Sequence 1258, Applia Sequence 22994, Applia Sequence 2995, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6380, Ap
Sequence 4, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 121, App
Sequence 27, Appl
Sequence 27, Appl
Sequence 27, Appl
                                                                                                                                                       April 1, 2005, 07:04:23 ; Search time 15.5342 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1
Sequence 2
Sequence 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-134-000C-6380

US-10-246-658-4

US-10-246-658-4

US-09-252-991A-29358

US-08-118-388-7

US-08-118-388-7

US-08-118-388-7

US-08-118-388-9

US-08-938-125-11

US-08-938-125-11

US-09-338-125-11

US-09-338-125-11

US-09-338-125-11

US-09-252-991A-33012

US-09-252-991A-29595

US-09-252-991A-2959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -09-267-439-121
-08-388-852B-2
-09-073-138-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   513545 seqs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                         OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                      US-09-761-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         881.0
881.0
746.22.22.23.66.0
746.22.22.23.66.0
746.22.23.00.22.23.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Result
No.
                                                                                                                                                                                                                                                                            Title:
                                                                                                                                                                Run
```

```
Sequence 6380, Application US/09134000C
| Sequence 6380, Application US/09134000C
| Patent No. 6617156
| GENERAL INFORMATION:
| APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO FILE REFERENCE: 032796-032
| CURRENT APPLICATION NUMBER: US/09/134,000C CURRENT FILING DATE: 1999-08-13
| PRIOR FILING DATE: 1997-08-15
| NUMBER OF SEQ ID NOS: 6812
| SOFTWARE: PatentIn version 3.1
| SEQ ID NO 6380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                 12, Appl
42215, A
3, Appli
11, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                     Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                             Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                  Sequence
Sequence
    Sequence
Sequence
                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88.1%; Score 37; DB 4; Length 616; 71.4%; Pred. No. 1.1e+02; ive 2; Mismatches 0; Indels
US-09-073-138-121

US-07-891-942G-6

US-09-124-000C-6451

US-08-526-710-21

US-08-862-855-21

US-09-226-985-21

US-09-228-866-21

US-09-228-866-21

US-08-742-243-35

US-08-742-243-36

US-08-742-243-38

US-08-742-243-38

US-08-742-243-38

US-09-746-129-94

US-09-746-129-94

US-09-270-767-42215

US-09-270-767-42215

US-08-179-94
                                                                                                                                                                                                               ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT ORGANISM: Enterococcus faecalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |:|:|||
507 CLPMTSC 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CVPLTSC 7
   74666
                                                                                                                                                                                                                                                      US-09-134-000C-6380
                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-134-000C-6380
```

```
GENERAL INCOMATION:

APPLICANT: Garbers, David L.

TITLE OF INVENTION: Species-Specific Egg-Binding Proteins of
TITLE OF INVENTION: Sperm

NUMBER OF SEQUENCES: 8

CORRESPONDENCE ADDRESS:

ADDRESSE: Arnold, White & Durkee
STREET: P. O. Box 4433
COUNTY: Houston
STATE: Texas

COMPITE: Texas

COMPITE: READBLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: Elopy disk
COMPUTER: Elopy disk
COMPUTER: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION DATA:
FILING DATE: Submitted Herewith
CLASSIFCATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: MORIKAWA, MINORU
APPLICANT: HARADA, NAOKI
APPLICANT: HARADA, NAOKI
TITLE OF INVENTION: GENE ENCODING IGG FC REGION-BINDING
TITLE OF INVENTION: PROTEIN
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: PO BOX 747
CITY: FALLS CHURCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 34; DB Pred. No. 1.3e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Application US/08718388 Patent No. 6271362
                                                                          Sequence 2, Application US/08276967
Patent No. 5851817
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INPORMATION:
NAME: Kitchell, Barbara S.
RECISTRATION NUMBER: 33,928
REPERENCE/DOCKET NUMBER: UTSD
TELECOMUNICATION INFORMATION:
TELEPHONE: 713-787-1400
TELEFAK: 713-789-2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81.0%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 22040-0747
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2476 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 79-0924
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , MOLECULE TYPE: protein US-08-276-967-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-718-388-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 29358, Application US/09252991A

Sequence 29358, Application US/09252991A

Patent No. 6551795

GENERAL INFORMATION:

PRICE REPERENCE:

PILE REPERENCE: 107196-0.36

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT APPLICATION NUMBER: US 60/074,788

PRIOR PELING DATE: 1999-02-18

PRIOR PILING DATE: 1998-07-18

PRIOR PILING DATE: 1998-07-18

PRIOR FILING DATE: 1998-07-27

WOMBER OF SEQ ID NOS: 33142

SEQ ID NO 29358
                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Yu, Xuanchuan
APPLICANT: Yu, Xuanchuan
APPLICANT: Yu, Xuanchuan
APPLICANT: Socille, John
APPLICANT: Wilganowski, Nathaniel L.
APPLICANT: Wilganowski, Nathaniel L.
APPLICANT: Wilganowski, Nathaniel L.
APPLICANT: Nguyen, Nghi D.
TITLE OF INVERTION: No. 6790660el Human Kielin-Like Proteins and Polynucleotides Encor FILE REFERENCE: LEX-0376-USA
CURRENT APPLICATION NUMBER: US/10/246,658
CURRENT FILING DATE: 2002-09-18
PRIOR APPLICATION NUMBER: US 60/323,068
PRIOR APPLICATION NUMBER: US 60/323,068
PRIOR FILING DATE: 2001-09-18
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2
LIENGTH: 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81.0%; Score 34; DB 4; Length 394; 71.4%; Pred. No. 2.4e+02; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83.3%; Score 35; DB 4; Length 685; 57.1%; Pred. No. 2.7e+02;
                                                             83.3%; Score 35; DB 4; Length 627; 57.1%; Pred. No. 2.5e+02; vative 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/10246658 Patent No. 6790660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
                                        Query Match
Best Local Similarity 57.1%,
4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: homo sapiens
ORGANISM: homo sapiens
                                                                                                                                                                             |:|::||
336 CIPISSC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 336 CIPISSC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 4: Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC 7
                                                                                                                                                     1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
US-09-252-991A-29358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-252-991A-29358
         ; UKGANASIN. ...
US-10-246-658-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-246-658-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                       ð
                                                                                                                                                                                           g
```

Gaps

; 0

1; Indels

|:| ||| 169 CMPCTSC 175

, DB 2; Length 2476;

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred, No. 2.8e+03;
                                                                                                                                                                                                    Sequence 11, Application US/08969106

Patent No. 5986055

GENERAL INFORMATION:

APPLICANT: Yang, M.

APPLICANT: Schulz, V.

TITLE OF INVENTION:

TITLE OF INVENTION:

ORRESPONDENCE: 15

CORRESPEE: Pennie & Edmonds LLP

STREET: 1155 Avenue of the Americas

CITY: New York

STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-338-125-11

Sequence 11, Application US/09338125

Patent No. 6521412

GENERAL INPORMATION:

APPLICANT: Yang, M.

APPLICANT: Nandabalan, K.

APPLICANT: Schulz, V.

TITLE OF INVENTION: CDK2 INTERACTIONS

NUMBER OF SEQUENCES: 15

CORRESSEDWIDENCE ADDRESS:

ADDRESSEDE: Pennie & Edmonds LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/969,106
FILING DATE: 13-NOV-1997
CLASSIFICATION: 435
ATOMNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REGISTRATION NUMBER: 18,872
REGISTRATION NUMBER: 18,872
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Pennie & Edmonds LLP
STREET: 1155 Avenue of the Americas
                71.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM Compatible OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 280 amino acids
TYPE: amino acids
                Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 78.6
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
                                                                                                                 1183 ČLPĽAŠČ 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227 CVPATEC 233
                                                                          1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10036
                                                                                                                                                                                            US-08-969-106-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-969-106-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-718-388-9
; Sequence 9, Application US/08718388
; Sequence 9, Application US/08718388
; Patent No. 6271362
; APPLICANT: MORIKAWA, MINORU
; TITLE OF INVENTION: GENE ENCODING IGG FC REGION-BINDING
; TITLE OF INVENTION: PROTEIN
; NUMBER OF SEQUENCES: 29
; CORRESPONDENCE ADDRESSE:
; ADDRESSEE: BIRCH, STEWART, KOLASCH AND BIRCH
; STREET: PO BOX 747
; CITY: FALLS CHURCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 34; DB 3; Length 2594;
Pred. No. 1.4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81.0%; Score 34; DB 3; Length 5405;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/718,388
          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/718,388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Mismatches
                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 0230-111
TELECOMMUNICATION INFORMATION:
TELEFAX: (703) 205-8000
TELEFAX: (703) 205-8050
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 2594 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: 110-829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 0230-111
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 205-8050
TELEPHONE: (703) 205-8050
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 5405 amino acids
                                                                                                                          CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: MURPHY JR, GERALD M
REGISTRATION NUMBER: 28,977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: WIMPHY JR, GERALD M
REGISTRATION NUMBER: 28,977
                                                                                                                                                                                                                                                                                                                                                                                                                                                     81.0%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 71.4.
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                           , MOLECULE TYPE: protein US-08-718-388-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1183 CLPLASC 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-718-388-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
```

ö

```
..
0
                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1258, Application US/09538092
; Sequence 1258, Application US/09538092
; Patent No. 6753314
; GENERAL INFORMATION:
; APPLICANT: dist, Loi, Traci A.
; APPLICANT: Mansfield, Traci A.
; TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same; FILE REFERENCE: 15966-542
; CURRENT APPLICATION NUMBER: US/09/538,092
; CURRENT PILING DATE: 2000-03-29
; PRIOR FILING DATE: 1999-04-01
; PRIOR FILING DATE: 2000-02-01
; PRIOR FILING DATE: 2000-02-01
; NUMBER OF SEQ ID NOS: 1387
; SOFTWARE: CURPATSESGFFORMATE: Version 0.9
; SEQ ID NO 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 5179;
                                                                                                                                                                                                                                                                     Score 33; DB 2; Length 376;
Pred. No. 3.4e+02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY: misc_feature
LOCATION: (0)...(0)
CTHER INFORMATION: Polypeptide Accession Number Q02817
US-09-538-092-1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Sequence 92, Application US/09904615 | Sequence 92, Application US/09904615 | Patent No. 6566325 | GENERAL INFORMATION: APPLICANT: Rosen et al. | APPLICANT: Rosen et al. | TITLE OF INVENTION: 49 Human Secreted Proteins | FILE REFERENCE: PZ032P1 | CURRENT APPLICATION NUMBER: US/09/904,615 | CURRENT FILING DATE: 2001-07-16 | PRIOR FILING DATE: 2000-02-23 | PRIOR APPLICATION NUMBER: 60/97,917 | PRIOR APPLICATION NUMBER: 60/99,634 | PRIOR APPLICATION NUMBER: 60/098,634 | PRIOR FILING DATE: 1998-08-25 | PRIOR FILING DATE: 1998-08-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 33; DB 4;
Pred, No. 4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
REFERENCE/DOCKET NUMBER: HU95-03PA
                TELECOMMUNICATION INFORMATION:
TELEPHONE: (781) 861-6240
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 376 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78.6%;
71.4%;
                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                       : 376 amino acids amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                      , MOLECULE TYPE: protein US-08-875-972-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         712 CVPLAKC 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best_Local_Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                   |||:| |
26 CVPVTLC 32
                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-538-092-1258
                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                          ,
QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78.6%; Score 33; DB 4; Length 280; 71.4%; Pred. No. 2.6e+02; cive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/08875972

Patent No. 598564

GENERAL INFORMATION:
APPLICANT: Huntington Potter and Jinhue Li
APPLICANT: Huntington Potter and Jinhue Li
TITLE OF INVENTION: ASSAY FOR IDENTIFYING GENES CAUSING
TITLE OF INVENTION: CHROMOSOME NON-DISJUNCTION
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
STREET: TWO MILLIA Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Lexington
STATE: Massachusetts
COMPUTER: USA
ZIP: 02173-4799
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIDLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURPATION SYSTEM: US/08/875,972
FILING DATE: 08-AUG-97
CLASSIFICATION DATA:
APPLICATION NUMBER: US/08/875,972
FILING DATE: 16-AUG-195
RILING DATE: 16-AUG-195
ATTORNEY/AGENT INFORMATION:
NAME: Granahan Esq., Patricia
REGISTRATION NUMBER: 32,227
                                                                                                                                                 COMPUTER: 1BM COMPUTER:
OPERATING SYSTEM: DOS
SOFTWARE: FRASESTO Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/338,125
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION:
PRIOR APPLICATION NUMBER: US/08/969,106
FILING DATE: 13-NOV-1997
ATTORNEY AGENT INFORMATION:
NAME: MISTOCK, S. Leslie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 7934-057
TELECOMMUNICATION INFORMATION:
TELECHONE: 212-790-9090
TELERAX: 212-869-9741
TELECOMMUNICATION INFORMATION:
TELEFAX: 66141 PENNE:
TELECAMENTION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 280 emino acids
TTELNING ACIDS
TELETAX: 200 emino acids
TELETAX: 200 emino acids
TENTER: 200 emino acids
TENTER: 200 emino acids
TELETAX: 200 emino acids
TELETAX: 200 emino acids
                                                                                                                                              COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227 CVPATEC 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTSC 7
                               New York
: USA
                                                                          10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-338-125-11
                               STATE: N
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
US-08-875-972-2
```

Query Match

à

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13

US-09-270-767-36833

US-09-270-767-36833

Sequence 36834, Application US/09270767

Patent No. 6703491

GENERAL INFORMATION:

APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster.

FILE REFRENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

UNMBER OF SEQ ID NOS: 62517

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 36833

LENGTH: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 52050, Application US/09270767

Batent No. 6703491

GENERAL INFORMATION

GENERAL INFORMATION

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: FILE REFERENCE: FILE REFERENCE: 1999-03-17

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT PILING DATE: 1999-03-17

SOFUMBER OF SEQ ID NOS: 62517

SOFUMBER: Patentin Ver. 2.0

SEQ ID NO 52050

LENGTH: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 32; DB 4; Length 71;
Pred. No. 1e+02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                  76.2%; Score 32; DB 4; Length 68; 83.3%; Pred. No. 1e+02; 1ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 32; DB 4; Length 71;
Pred. No. 1e+02;
1; Mismatches 1; Indels
                                                                                                                                      ; LOCATION: (68)
; OTHER INFORMATION: Xaa equals stop translation
US-09-904-615-92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-09-270-767-36833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-09-270-767-52050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative
NUMBER OF SEQ ID NOS: 170
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 92
                                                                                                                                                                                                               Query Match
Best Local Similarity 83...
Sr. Conservative
                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |:| |||
45 CLPNTSC 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |:| |||
45 CLPNTSC 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                        :|||||
38 IPLTSC 43
                                                                                                                                                                                                                                                                                                                 2 VPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-270-767-52050
                                                             LENGTH: 68
                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

```
Sequence 2294, Application US/09252991A

is Sequence 2294, Application US/09252991A

is Sequence 2294, Application US/09252991A

is Patent No. 6551755

is GENERAL INFORMATION:

is TITLE OF INVENTION:

TITLE OF INVENTION:

TITLE OF INVENTION:

AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION:

TITLE OF INVENTION:

AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT APPLICATION NUMBER: US/00/04,190

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 2294

LENGTH: 142

CORPANISM: Pseudomonas aeruginosa

US-09-252-991A-2294

Query Match

Best Local Similarity 71.4%; Pred: O; Mismatches 2; Indels 0; Gaps 0;

Matches 5; Conservative 0; Mismatches 2; Indels 0;

Db 19 CCPTISC 25

Search completed: April 1, 2005, 09:36:17

Search completed: April 1, 2005, 09:36:17
```

THIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 06:17:29 ; Search time 8.71233 Seconds (without alignments) 66.262 Million cell updates/sec Run on:

US-09-761-636A-12 38 1 CVPLTC 6 Perfect score: Sequence: Title:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
1: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES Reg

	Description	pro		pregnancy-associat	hypothetical prote	adenosine receptor	endothelin recepto	transposase all467	probable ethylene	glycoprotein antig	\rightarrow	hypothetical 12.2K	hypothetical prote	-H	two-component syst	τ O	ferredoxin [2Fe-2S	apolipoprotein H p	integumentary muci	probable clathrin	tran	glycoprotein GP330	mucin - rat	gp330 protein prec	beta-defensin-5 -	hypothetical prote	hypothetical prote	Q	hypothetical prote	vasotocin receptor
Oct. Williams	DI	256	T27621	S65464	T20914	148933	A54126	AC2390	T08050	A34498	A53970	S12982	T26433	C81364	B82659	T40593	B43652	NBBO	A35281	T40610	AD1930	A30363	JC5598	4	E45495	T29606	T27063	C69341	T50019	5013
	88	7	~	7	7	7	~	~	7	~	٦	7	~	~	7	~	7	Н	7	~	7	7	7	7	0	7	~	~	~	N
	Length	œ	293	1627	367	332	415	467	637	650	1236	108	137	156	252	301	314	345	398	425	518	972	1034	4660	40	133	224		414	434
، حد	Query	100	97.4	92.1		86.8	86.8			86.8				84.2				84.2								٠	•			
	Score	38	37				33	33	33	33			32		32			32						32		31	31	31	31	31
;	esuit No.	1	7	m	4	ß	9	7	æ	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	59

97.4%; Score 37; DB 2; Length 293; 83.3%; Pred. No. 12;

Query Match Best Local Similarity

mannose-1-phosphat hypothetical proce RES4-25 procein - probable salt-indu VLDL receptor prec hypothetical prote hypothetical prote hypothetical prote P-glycoprotein - S rough deal protein hypothetical prote beta-defensin-7 beta-defensin-3 beta-defensin-3 beta-defensin-3 heta-defensin-6 airway epithelial linqual antimicrob	
AC3622 T24121 UD6188 UC4858 UC4858 UC4858 T130624 T130821 T130821 T130821 T44495 C44495 F45495 F45495 F45495	
000000000000000000000000000000000000000	
200 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
8811.66 8811.66 8811.67 8811.67 788.99	
₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩	

ALIGNMENTS

```
hypothetical protein ZC504.5 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T27621
R;Kershaw, J.
Submitted to the EMBL Data Library, July 1995
A;Reference number: Z20394
A;Accession: T27621
A;Accession: T27621
A;Cocus references: UNA
A;Residues: DNA
A;Residues: 1-293 < WILL-
A;Coss references: UNIPROT:018280; EMBL:Z50029; PIDN:CAA90343.1; GSPDB:GN00028; CESP:ZC:
A;Experimental source: clone ZC504
C;Genetics:
A;Experimental source: Clone ZC504
A;Genetics:
A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Access references: UNIPROT:018280; A;Acce
hypothetical protein F08D12.6 - Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Species: Caenorhabditis elegans
C; Species: Coct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
C; Accession: T25674
R; Le, T.; Waterston, R.
submitted to the EMBL Data Library, December 1996
A; Description: The sequence of C. elegans cosmid F08D12.
A; Reference number: Z20068
A; Reference number: Z20068
A; Reference number: Z20068
A; Reference number: L25006
A; Reference number: L25006
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Status: preliminary; translated from GB/EMBL/DBJ
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Status: preliminary; transla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match 100.0%; Score 38; DB 2; Length 817; Local Similarity 100.0%; Pred. No. 19; occal similarity 0, Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      479 CVPLTC 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S:
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

N

```
A; Introns: 23/3; 97/2; 145/2; 301/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86.8%;
                                                                                                                                                                                                                                                                         Query Match 89.5%;
Best Local Similarity 66.7%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 83.5
Thes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 86.8
Best Local Similarity 83.3
Matches 5; Conservative
A, Reference number: Z19346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              254 CVPLAC 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCPLTC 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: mRNA
A;Residues: 1-415 <KUM>
                                                                                                                                                                                                                                                                                                                                                                                                                  CIPVTC 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC
                                                                                                                                                                                    A, Gene: CESP:F14F8.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: 148933
                        A; Accession: T20914
                                                                                                                                                                                                            A; Map position: 5
                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                            C;Species: Homo sapiens (man)
C;Date: 22-Nov-1996 #text_change 09-Jul-2004
C;Accession: S65464; S65463; Ā54220; 138097
R;Haaning, J:; Oxvig, C:; Overgaard, M.T.; Ebbesen, P.; Kristensen, T.; Sottrup-Jensen, Bubmitted to the EMBL Data Library, June 1995
A;Description: Complete cDNA sequence of the preproform of human pregnancy-associated pl A;Reference number: S65464
A;Accession: S65464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-102 <HAM'>
A; Cross-references: EMBL:U28727
A; Notes: the authors translated the codon CGA for residue 101 as Thr
R; Kristensen, T.; Oxvig, C.; Sand, O.; Moller, N.P.H.; Sottrup-Jensen, L.
B; Cchemistry 33, 1592-1598, 1994
A; Title: Amino acid sequence of human pregnancy-associated plasma protein-A derived from
A; Reference number: A54220; MUID:94146014; PMID:7508748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: mRNA

A; Residues: 77-1627 «KR1»

A; Cross-references: GB: X62880; NID: g394649; PIDN: CAA48341.1; PID: g394650

A; Cross-references: GB: X62880; NID: g194649; PIDN: CAA48341.1; PID: g394650

R; Oxvig, C.; Sand, O.; Kristensen, T.; Gleich, G.J.; Sottrup-Jensen, L.

B; Diol. Chem. 268, 12243-12246, 1993

A; Title: Circulating human pregnancy-associated plasma protein-A is disulfide-bridged to

A; Reference number: 138097; MUID: 93286045; PMID: 7685339
                                                                                                                                                                                                                                                                                                                                                                                                                                                  <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
T20914
T20914
T20914
C)Species: Caenorhabditis elegans
C)Species: Caenorhabditis elegans
C)Species: Caenorhabditis elegans
C)Species: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C)Accession: T20914
S:Lloyd, C.
pubmitted to the EMBL Data Library, March 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Map position: 9q33.1-9q33.1
1-22/Domain: signal sequence #status predicted <PRO>
;23-80/Domain: propeptide #status predicted <PRO>
;81-1627/Product: pregnancy-associated plasma protein A #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 77-1627 <RES>
A;Cross-references: EMBL:X68280; NID:g394649; PIDN:CAA48341.1; PID:g394650
    Gaps
    .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.1%; Score 35; DB 2; Length 1627; 83.3%; Pred. No. 1.2e+02; ive 1; Mismatches 0; Indels
    Indels
                                                                                                                                                                                                                 pregnancy-associated plasma protein A precursor - human
    ö
    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cross-references: GDB:134729; OMIM:176385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Status: translated from GB/EMBL/DDBJ
    1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5; Conservative
    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |||:||
1410 CVPVTC 1415
                                                                                                                                                                                                                                          N; Alternate names: PAPP-A
                                                                                               123 CIPLTC 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTC 6
                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Accession: I38097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Accession: S65463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gene: GDB:PAPPA
       5.
       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                     ઠે
```

```
endothalin receptor-AX - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Species: Xenopus laevis (African clawed frog)
C;Date: 07-unl-1995 #sequence_revision 07-unl-1995 #text_change 09-Jul-2004
C;Accession: A54126
Biol. Chem. 269, 13414-13420, 1994
A;Rithe: Cloning and characterization of a novel endothelin receptor from Xenopus heart.
A;Reference number: A54126; MuID:94230448; PMID:8175772
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-367 <WIL>
A;Cross-references: UNIPROT:Q9XU36; EMBL:Z92782; PIDN:CAB07186.1; GSPDB:GN00023; CESP:Fl4
A;Experimental source: clone F14F8
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:Q60614; EMBL:U05673; NID:g498337; FIDN:AAA19001.1; FID:g49833:
C;Superfamily: adenosine receptor Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:091548; GB:U06633; NID:9507893; PIDN:AAA19570.1; PID:9507894
A;Note: authors translated the codon ATG for residue 84 as His
C;Superfamily: endothelin receptor B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C,Accession: 148933
R;Marquardt, D.L.; Walker, L.L.; Heinemann, S.
D. Immunol. 152, 4508-4515, 199
A;Title: Cloning of Two Adenosine Receptor Subtypes From Mouse Bone Marxow-Derived Mast A;Reference number: 148931; MUID:94209670; PMID:8157966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     adenosine receptor subtype - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86.8%; Score 33; DB 2; Length 415;
83.3%; Pred. No. 89;
ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                   Length 367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-332 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 33; DB 2;
Pred. No. 74;
0; Mismatches
                                                                                                                                                                                                                                                                                                   DB 2;
52;
                                                                                                                                                                                                                                                                                                   Score 34; DB 2
Pred. No. 52;
2; Mismatches
```

```
A;Gene: plc-gammad
A;Cross-references: FlyBase:FBgn0003416
C;Superfamily: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase II; 1-phosphatid
hodiesterase domain Y homology; SR2 homology; SH3 homology
C;Keywords: phosphoric diester hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;326-468/Domain: 1-phosphatidylinositoi-4,5-bisphosphate phosphodiesterase domain X homc F;589-688/Domain: SH2 homology <8H28> F;701-789/Domain: SH2 homology <8H2> F;701-789/Domain: SH3 homology <8H3> F;701-879/Domain: SH3 homology <8H3> F;979-1095/Domain: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase domain Y hom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical 12.2K protein (68K signal recognition particle region) - dog C; Species: Canis lupus familiaris (dog) C; Species: Canis lupus familiaris (dog) C; Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 05-Nov-1999 C; Accession: S12982 R; Frank, R.; Frank, R.; Dobberstein, B. FEBS Lett. 276, 103-107, 1990 A; Fitle: The 68 kDa protein of signal recognition particle contains a glycine-rich region A; Reference number: S12981; MUID:91092392; PMID:1702390
                                                                                                                                                                                                                                                                                                                                                                                  -phosphatidylinositol-4,5-bisphosphate phosphodiesterase (EC 3.1.4.11) gamma-D - fruit 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C,Accession: A53970
R;Emori, Y.; Sugaya, R.; Akimaru, H.; Higashijima, S.; Shishido, E.; Saigo, K.; Homma, B.; Emori, Y.; Sugaya, R.; Akimaru, H.; Higashijima, S.; Shishido, E.; Saigo, K.; Homma, A;Emori, Chem. 269, 19474-19479, 1994
A;Title: Drossphila phospholipase C-gamma expressed predominantly in blastoderm cells a A;Reference number: A53970; MUID:94308233; PMID:8034716
A;Accession: A53970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Molecule type: mRNA
A,Residues: 1-108 <HER>
A,Cross-references: GB:X53744; NID:g931; PIDN:CAA37774.1; PID:g933
C,Superfamily: dog hypothetical 12.2K protein (68K signal recognition particle region)
                                                                                                                                                                                                                                                                                                                                                                                                                   C,Species: Drosophila melanogaster
C,Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  86.8%; Score 33; DB 1; Length 1236; 83.3%; Pred. No. 2.2e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         h Similarity 66.7%; Pred. No. 45; Length 108; 4; Conservative 2; Mismatches 0; Indels
                             Score 33; DB 2; I
Pred. No. 1.3e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary
A;Molecule type: DNA
Residues: 1-1236 <EWO>
A;Cross-references: UNIPROT:Q24284; GB:D29806
                                 86.8%;
83.3%;
Query Match
Best Local Similarity 83.3.
Perion 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1196 CYPLTC 1201
                                                                                                                                                                                                                       147 CVPTTC 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 4; Conserv
                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          · 1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTC 6
                                                                                                                                                           1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
T26433
                                                                                                                                                                                                                                                                                                                       RESULT 10
A53970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
                                                                                                                                                           ò
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                  transposase all4675 [imported] - Nostoc sp. (strain PCC 7120)
C;Species: Nostoc sp. PCC 7120
A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
C;Accession: AC2390
R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguchi Nakazaki, N.; Silmpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Residues: 1-467 <KUR>
A;Cross-references: UNIPROT:Q8YN93; GB:BA000019; PIDN:BAB76374.1; PID:g17133812; GSPDB:G
A;Experimental source: strain PCC 7120
C;Genetics:
                                                                                                                                                                                                                                                                                                         DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium Ana
A;Reference number: AB1807; MUID:21595285; PMID:11759840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: mRNA
A;Residues: 1-637 <SAT>
A;Cross-references: UNIPROT:O49077; EMBL:AF037368; NID:g2707333; PIDN:AAC99477.1; PID:g2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Species: Cucumis melo (muskmelon)
C; Species: Cucumis melo (muskmelon)
C; Date: 21-May-1999 #sequence_revision 21-May-1999 #text_change 09-Jul-2004
C; Accession: T08050
R; Sato-Nara, K.; Yuhashi, K.; Higashi, K.; Hosoya, K.; Kubota, M.; Ezura, H.
submitted to the EMBL Data Library, December 1997
A; Description: Expression of an ERS homolog gene of melon (Cucumis melo L. reticulatus)
A; Reference number: Z16317
A; Accession: T08050
A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Glycoprotein antigen Bm86 precursor - southern cattle tick
C;Species: Boophilus microplus (southern cattle tick)
C;Species: Boophilus microplus (southern cattle tick)
C;Date: 22-Jun-1990 #sequence_revision 22-Jun-1990 #text_change 09-Jul-2004
C;Accession: A34498
R;Rand, K.N.; Moore, T.; Sriskantha, A.; Spring, K.; Tellam, R.; Willadsen, P.; Cobon, Proc. Natl. Acad. Sci. U.S.A. 86, 9657-9661, 1989
A;Title: Cloning and expression of a protective antigen from the cattle tick Boophilus A;Reference number: A34498; WUID:90099323; PMID:2690068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Cross-references: UNIPROT: P20736; GB: M29321; NID: g161667; PID: g161668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 33; DB 2; Length 467;
Pred. No. 98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86.8%; Score 33; DB 2; Length 637, 83.3%; Pred. No. 1.38+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Status: preliminary; translated from GB/EMBL/DDBJ; Molecule type: mRNA. Residues: 1-637 <SAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - muskmelon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Keywords: glycoprotein
F;209-246/Domain: EGF homology <EGF>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              probable ethylene receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CVPYTC 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Molecule type: mRNA
Residues: 1-650 <RAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCPLTC 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                         A, Accession: AC2390
A, Status: preliminary
A, Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Gene: all4675
```

ò g

ò q ö

ö

```
Search completed: April Job time: 9.71233 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: SPDB:SPBC646.17c
A;Map position: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234 CVPLLC 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101 CIPATC 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                   A; Contents: annotation C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                A; Gene: XF1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C.Species: Campylobacter jejuni
C.Species: Campylobacter jejuni
C.Species: Campylobacter jejuni
C.Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
C.C.Speciesion: CB1364
R.Parkhill, J.; Wren, B.W.; Mungall, K.; Ketley, J.M.; Churcher, C.; Basham, D.; Chillin
C.W.; Quail, M.; Rajandream, M.A.; Rutherford, K.M.; VanVliet, A.; Whitehead, S.; Barrel
Nature 403, 665-668, 2000
A; Pitle: The genome sequence of the food-borne pathogen Campylobacter jejuni reveals hyp
A,Reference number: A81250; MUD:20150912; PMID:10688204
A,Status: preliminary
A,Nolecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C. Species: Xylella fastidiosa
C. Species: Xylella fastidiosa
C. Species: Xylella fastidiosa
C. Date: 18-Ang-2000 #sequence_revision 20-Aug-2000 #text_change 15-Sep-2003
C. Accession: B82559
R. Anticle: The genome sequence of the plant pathogen Xylella fastidiosa.
A) Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A, Roterence number: A82515; MUID: 20365717; PMID: 10910347
A, Note: for a complete list of authors see reference number A59328 below
A, Accession: B82659
A, Status: prellminary
A, Molecule type: DNA
A, Molecule type: DNA
A, Residues: 1-252 <SIM>A, Residues: 1-252 <SIM>A, Residues: 1-252 <SIM>A, Esperimental source: strain 9a5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: UNIPROT:Q9PP24; GB:AL139076; GB:AL111168; NID:g6968128; PIDN:CAB7316
C;Genetics:
A;Gene: Cj0908
                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:09XWR9; EMBL:AL032631; PIDN:CAA21579.1; GSPDB:GN00019; CESP.
A;Experimental source: clone Y106G6H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
hypothetical protein Y106G6H.16 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004 C;Accession. T26433
R;McMurray, A. Reference number: Z20214
A;Reference number: Z20214
A;Reference number: Z20214
A;Accession: T26433
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-137 <WILDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 156
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 32; DB 2;
Pred. No. 61;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                        2,
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 32; DB 2
Pred. No. 55;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                          83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 83.3
                                                                                                                                                                                                                                                                                                                                                                               A; Introns: 26/3; 61/3; 89/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ||||
COPLTC 41
                                                                                                                                                                                                                                                                                                            C;Genetics:
A;Gene: CESP:Y106G6H.16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45 CVPSTC 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                            A;Map position: 1
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
B82659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

```
cytoplasmic dynein intermediate chain - fission yeast (Schizosaccharomyces pombe) (fragme cytoplasmic dynein intermediate chain - fission yeast (Schizosaccharomyces pombe C; Species: Schizosaccharomyces pombe C; Species: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004 C; Accession: T40593 R; Seeger, K.; Harris, D.; Wood, V; Rajandream, M.A.; Barrell, B.G. Submitted to the EMBL Data Library, January 1999 A; Reference number: Z21938 A; Accession: T40593 A; Accession: T4
R;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Al Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H. as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S. submitted to GenBank, June 2000
A.Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohme J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigre Chado, M.A., Madelra, A.M.B.N.; Madelra, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, E. A.Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.; F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A. Rodrigues, V.; Rosa, A.J. de M.S. de M.S. de N.S. and Silva, A.C.R.; de Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Silva, A.C.R.; da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.C.R.; da Sil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Superfamily: response regulator with LytTR DNA-binding domain, AlgR/VirR/ComE type; res
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 32; DB 2; Length 301; Pred. No. 1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 32; DB 2; Length 252;
Pred. No. 90;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1, 2005, 09:33:28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 83.3%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Conservative
```

```
Q7QPM3;
                                                                                                                                                                   Q7QPM3
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loc
Matches
                                                                                                                                                  RESULT 1
Q7QPM3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7R2Y9
                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   076844 human immun
076912 ciona intes
092313 mus musculu
096p27 homo sapien
070478 giardia lam
06ptg3 strondyloce
06pte0 monosiga br
099m2 brachydanio
091k57 mus musculu
081484 rattus norv
061027 rattus norv
061027 rattus norv
061027 mus musculu
080487 mus musculu
080487 mus musculu
08147 mus musculu
08147 mus musculu
08147 mus musculu
070109 mytilus edu
081814 sorghum bic
                                                                                                                                                                                                                                                                                                                                             Q7qpm3 giardia lam
Q7r2y9 giardia lam
O18280 caenorhabdi
Q963e7 caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           capra hircu
oryza sativ
sorghum bic
caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oryza sativ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    homo sapien
                                              April 1, 2005, 03:33:32 ; Search time 36.7397 Seconds (without alignments) 83.628 Million cell updates/sec
                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9xu36
Q8s2a0
Q8n9t9
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                        1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0800W3
09ES06
09E84K8
08E4K7
08E852
06EG52
070JV0
070JV0
070JV0
08E847
08E847
                                                                                                                                                                                                                                                                                                                                              Q7QPM3
Q7R2Y9
Q18280
Q963E7
Q7SKG4
Q769I2
CSM1_MOUSE
CSM1_HUMAN
Q676VZ
                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                 OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                      070YY8
06PTG3
06PTE0
09DGM2
09JK57
PDP2 RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9XU36
Q8S2A0
Q8N9T9
                                                                                                                          Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                  UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                               US-09-761-636A-12
38
                                                                                                                                                                                                                                                                                                                     Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                             1 CVPLTC 6
                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                889.55
895.11
895.11
895.11
895.53
895.53
                                                                                                                  Scoring table:
                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                              Score
                                                                                                  Sequence:
                                                                                                                                          Searched:
                                                                                                                                                                                                                                     Database
                                                 Run on:
                                                                                                                                                                                                                                                                                                                     Result
No.
```

```
ö
                                                          acinetobact
brachydanio
caenorhabdi
                         coturnix co
gallus gall
human immun
giardia lam
giardia lam
                                                   giardia lam
                                                                                    synechococc
xestia c-ni
                                                                                                     mus musculu
                                                                                                              arabidopsis
                   streptococc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=WB C6;
Morrison H.G., McArthur A.G., Adam R.D., Aley S.B., Gillin F.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                09a,1p4
09ptm2
09ptm3
07gw12
07gw12
06f8j9
090yb8
095yd9
095yd9
099yv4
060614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O7R2Y9 PRELIMINARY; PRT; 1451 AA.
O7R2Y9;
O1-MAR-2004 (TrEMBLrel. 26, Created)
O1-MAR-2004 (TrEMBLrel. 26, Last sequence update)
O1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
O1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
GLP 385 48908 44553.
Glaardia—lamblia ATCC 50803.
Bikaryota; Diplomonadida; Hexamitidae; Giardiinae; Giardia.
NCBI_TaxID=184922;
                                                                                                                                                                                                                           GLP 54 18133 16385.
Giardia lamblia ATCC 50803.
Eukaryota; Diplomonadida; Hexamitidae; Giardiinae; Giardia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 582;
                                                                                                                                                                                                 01-MAR-2004 (TrEMBLrel. 26, Created)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 38; DB 2;
100.0%; Pred. No. 37;
ive 0; Mismatches 0
                                                                                                                                                                                  582 AA
                                                                                                                                        ALIGNMENTS
                                                                                   TPIS SYNEL Q9PYV4
                                                                                                    AA2B MOUSE
Q9LID1
Q7R5J3
Q7QT99
Q9A1P4
Q9PTM2
Q7B1G1
Q7QML2
Q6FBJ9
Q90YB8
                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Conservative
                                                                                                                                                                                  PRELIMINARY;
5574
666
668
688
1118
1118
1158
1168
2246
2246
3332
3332
3355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    392 CVPLTC 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTC 6
```

```
Envelope glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                302 CIPLIC 307
       302 CIPLTC 307
                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                          Name=gur-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27SKG4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7SKG4
                                                                                                                                Q963E7
                                                                                RESULT 4
Q963E7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q7SKG4
                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                    Morrison H.G., McArthur A.G., Adam R.D., Aley S.B., Gillin F.D., Olsen G.J., Sogin M.L.; Giardia lamblia genome."; "Draft sequence of the Giardia lamblia genome."; Submitted (MAR-2003) to the EMBL/Genbank/DDBJ databases.
-!- CAUTION: The sequence shown here is derived from an EMBL/Genbank/DDBJ whole genome shotgun (WGS) entry which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 38; DB 2; Length 1451; 100.0%; Pred. No. 90; ative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                      | EMBL; AACB0100018; EAA41686.1; -...
| EMBL; AACB0100018; EAA41686.1; -...
| HSSP; P35555; 1EMN.
| InterPro; IPR006209; EGF_like.
| InterPro; IPR002049; Laminin_EGF.
| InterPro; IPR002249; Laminin_EGF.
| PROSITE; PS01024; EGF_1; 5...
| PROSITE; PS01048; EGF_2; 6...
| RROSITE; PS01048; EGF_3; 3...
| RROSITE; PS01248; LAMININ_TYPE EGF; UNKNOWN 1...
| SEQUENCE 1451 AA; 153516 MW; B355F8F33F62336C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97.4%; Score 37; DB 2; Length 447; 83.3%; Pred. No. 45; cive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Genome sequence of the nematode C.elegans: A platform for investigating biology."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kershaw J.K.;
Submitted (JUL-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BMBL, Z50029; CAA90343.3; -...
PIR; T27621; T27621.
Wormbase, WBGeneO001804, gur-3.
Wormbep, ZC504.5; CE30223.
GO: 0016020; C:membrane, IEA.
GO; GO: 0016529; F: colorant binding; IEA.
GO; GO: 0004984; F: olfactory receptor activity; IEA.
GO; GO: 0007608; P: perception of smell; IEA.
BEQUENCE 447 AA; 51227 MW; E916BEAA7C14C80C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1998 (TrEMBLrel. 05, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein 2504.5.
Name-gur. 3; ORFNames=ZC504.5.
Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        447 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     330 CVPLTC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
[1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 018280;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           018280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          none;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
018280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JDD DDT TO DDT T
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
```

```
MEDINE=22790439; PubMed=12908933; DOI=10.1089/08892220332230923;
MEDLINE=22790439; PubMed=12908933; DOI=10.1089/08892220332230923;
MEDLINE=22790439; PubMed=12908933; DOI=10.1089/08892220332230923;
A Tovanabutra S., Watanaveeradej V., Viputtikul K., De Souza M.,
A Razak M.H., Suriyanon V., Jitiawutikarn J., Sriplienchan S.,
A Razak M.H., Suriyanon W., Sirisopana N., Renzullo P.O.,
A Brom A.E., Robb M.L., Beyrer C., Celentano D.D., McNeil J.G.,
Birx D.L., Carr J.K., McCutchan F.E.;
Birx D.L., Carr J.K., McCutchan F.E.;
A new circulating recombinant form, CRF15 01B, reinforces the linkage RT between IDU and heterosexual epidemics in Thailand.";
A new circulating recombinant form, CRF15 01B, reinforces the linkage RT AIDS Res. Hum. Retroviruses 19:561-567(2003).
BENBL; MFS29772; AAQ09553.1; --
BENBL; MFS29772; AAQ09553.1; --
BENBL; MFS2P; DOIO01031; Cintegral to membrane; IEA.
GO; GO:0010028; Civiral capsid; IEA.
GO; GO:001031; Civiral capsid; IEA.
GO; GO:0019028; Civiral envelope; IEA.
GO; GO:0019038; Envertural molecule activity; IEA.
BENDL; MFSPP: PRO00373; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                 Canorhabditis elegans.
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfan; PF00516; GP120; 1.
Pfan; PF00517; GP41; 1.
AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97.4%; Score 37; DB 2; Length 447;
83.3%; Pred. No. 45;
.ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                          Robertson H.M.; Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases. Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases. EMBL, AF387606; AAK70489.1; -
GO, GO:0016020; C:membrane; IEA.
GO; GO:0005549; F:odorant binding; IEA.
GO; GO:0004984; F:olfactory receptor activity; IEA.
GO; GO:0004672; F:receptor activity; IEA.
GO; GO:0007608; P:perception of smell; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                447 AA; 51176 MW; 3AB7B4216F048BEB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2003 (TrEMBLrel. 25, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                     0963E7;
01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Putative chemoreceptor GUR-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
NCBL_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                849 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 83...
S; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
PRELIMINARY;
```

```
3487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3488
                                                                                                                                                                                                                                                                                                                                                                                           Name=1;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                Sasaki A., Miyamoto Y., Satou Y., Satoh N., Ogasawara M.;
"Novel endostyle-specific genes in the ascidian Ciona intestinalis.";
"Novel endostyle-specific genes in the ascidian Ciona intestinalis.";
Zool. Sol. 00.0(2003).

InterPro; IPR006207; Cyg knot_C.
InterPro; IPR001007; VWF_C.
InterPro; IPR001007; VWF_C.
SMART; SM00041; CT: 1.
SMART; SM00214; VWC; 2.
PROSITE; PS01225; CTCK_1; UNKNOWN_1.
PROSITE; PS01225; CTCK_2: 1.
PROSITE; PS01225; CTCK_2: 1.
PROSITE; PS01284; VWFC_1: UNKNOWN_2.
                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                Ciona intestinalis.
Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
Phlebobranchia; Cionidae; Ciona.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=21365705; PubMed=11472063; DOI=10.1006/geno.2001.6587; Sun P.C., Uppaluri R., Schmidt A.P., Pashia M.E., Quant B.C., Sunwoo J.B., Gollin S.M., Scholnick S.B.; "Transcript map of the 8p23 putative tumor suppressor region."; Genomics 75:17-25(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     94.7%; Score 36; DB 2; Length 551; 83.3%; Pred. No. 87;
                              Score 37; DB 2; Length 849;
Pred. No. 84;
                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
         849 AA; 96536 MW; D7AB6F8B670BAED3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE 551 AA; 58926 MW; FFCAD37C1CDB19FD CRC64;
                                                                                                                                                               05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-MAR-2004 (Rel. 43, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
CUB and sushi multiple domains protein 1 precursor.
                                                                                                                                               551 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Mismatches
                                                   1; Mismatches
                                                                                                                                                                                                Von Willebrand Factor like 2 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MOUSE STANCE.
CSM1 MOUSE STANCE.
Q923L3, Q8BUV1, Q8BYQ3,
29-MAR-2004 (Rel. 43, Last seque:
THT-2004 (Rel. 44, Last anno)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 1).
                              97.4%;
                  Ouery Match
Best Local Similarity 83.33,
Lhon 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 83.3
es 5; Conservative
                                                                                                                                               PRELIMINARY;
                                                                                   |:||||
125 CIPLTC 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          378 CVPITC 383
                                                                      1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTC 6
                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                    NCBI_TaxID=7719;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=C57BL/6;
                                                                                                                                                                                                            Name=Ci-VWFL2;
Transmembrane.
SEQUENCE 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=Csmd1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                         TER
                                                                                                                                                        076912;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
CSM1 MOUSE
CSM1 MOUSE
DC 092153
DT 29-MAR-
DT 05-JMR-
DF CUB and
CS MammelC
CS Mammali
CO Mammali
CO Mammali
RP SEQUENT
RN 11
RP SEQUENT
RX STAIN
RA SUNWOO
RI
CSM1
                                                                                                                                              076912
                                                                                                                          RESULT 6
                                                                                                                                   8
                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
REP (ISOFORM 2)

REPAINS—CS7BL(6J; TISSUE—Cerebellum, and Hypothalamus;

REPAINS—CS7BL(6J; TISSUE—Cerebellum, and Hypothalamus;

REPAINS—22354683; PubMed=12466851; DOI=10.1038/nature01266;

REPAINS—22354683; PubMed=12466851; DOI=10.1038/nature01266;

RA OKAZAKI Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kolosawa H.,

RA Aggi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,

Raddarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,

Raddarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,

Raddarelli R., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,

RA Jake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,

Radastriand T., Gariboldi M., Gissi C., Godzik A., Gough J.,

Ranai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,

Ranai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,

Ranajaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,

Maglott D.R., Mallais L., Marchiomii L., McKenzie L., Miki H.,

Radashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,

Raddelin A., Schneider C., Semple C.A., Serou M., Shimada K.,

Ravasi T., Reed J.C., Reed D.J., Reid J., Rimag B.Z., Ringwald M.,

Raylming L.G., Wangst Y., Taylor M.S., Teasdale R.D., Tomite M.,

Raylming L.G., Wangst Y., Yanagisawa M., Yang I., Yang I.,

Runa Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,

Rhiraki T., Waki K., Kawai J., Alazawa K., Shinagawa H.,

Shiraki T., Waki K., Kawai J., Alazawa K., Shinagawa H.,

Kanyazaki A., Sakai K.,

Sakaiki Y., Sakai K.,

Sakaiki K., Sakai K.,

Sakaiki Y.,

Sannishi A., Sokaiki Y.;

Rannishi A., Sakaiki Y.;

Rannishi A., Sakaiki Y.;

Rannishi A., Sakaiki Y.;

Rannishi A., Wangeriptome based on functional annotation of for 770 full-length Chans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CUB and sushi multiple domains protein 1. Extracellular (Potential).
[2]
SEQUENCE FROM N.A. (ISOFORM 3), AND SEQUENCE OF 3250-3564 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Signal; Sushi; Transmembrane. Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isold=Q923L3-3; Sequence=VSP_009036;
Note=No experimental confirmation available;
-:- SIMILARITY: Belongs to the CSMD family.
-:- SIMILARITY: Contains 14 CUB domains.
-:- SIMILARITY: Contains 28 Sushi (CCP/SCR) domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Event=Alternative splicing; Named isoforms=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=2;
IsoId=Q923L3-2; Sequence=VSP_009037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IsoId=Q923L3-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP, O9UCV4; 1NZI.
MGD; MGI:2137383; CSmd1.
InterPro; IPR000859; CUB.
InterPro; IPR000436; Sushi_SCR_CCP.
Pfam; PF00411; CUB; 14.
Pfam; PF0064; Sushi, 28.
PROSITE; PS01180; CUB; 14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AY017475; AAG54083.1; -
EMBL, AXO88679; BAC30095.1; ALT_INIT.
EMBL; AXO82377; BAC38482.1; -
HSSP; O9UCV4; INZI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alternative splicing; Repeat;
SIGNAL 1 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60,770 full-length cDNAs.";
Nature 420:563-573(2002).
```

```
TISSUB-Brain;

RX CISSUB-Brain;

RX CISSUB-Brain;

RX CISSUB-Brain;

RX CLAT, Surviki Y., Nishikawa T., Otanki T., Sugiyama T., Irie R.,

RA CLAT, Surviki Y., Nishikawa T., Otanki T., Sugiyama T., Irie R.,

RA Hakamateu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.,

RA Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S.,

RA Sekine M., Obayashi M., Kawai Y., Isono Y., Nakamura Y.,

RA Shiratori A., Sudo H., Hasoiri T., Kaku Y., Kodaira H., Kondo H.,

RA Shiratori A., Sudo H., Kamiara K., Katu Y., Kodaira H., Kondo H.,

RA Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E.,

RA Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y.,

RA Tunida S., Ono Y., Takiquohi S., Watanabe S., Yosida M., Hotuta T.,

RA Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M.,

RA Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M.,

RA Nomiyama H., Satoh N., Takamain. Pujia A., Bara H.,

RA Nomiyama H., Satoh N., Takamai S., Terashima Y., Sano S.,

Moriya S., Moniyama H., Satoh N., Takamai S., Terashima Y., Suzuki O.,

RA Hashigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,

RA Hashigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,

RA Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,

RA Awabata A., Hikiji T., Robatake N., Inagaki H., Ikema Y., Okamoto S.,

RA Matsumura K., Nakamai Y., Mizuno T., Shigeta K., Sasaki M.,

RA Matsumura K., Nakamai Y., Mizuno T., Kohinaga M., Sasaki M.,

RA Matsumura K., Nakashima T., Morinaga M., Sasaki M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESOURT BY ANDRON STANDARD; PRT; 3565 AA.

TO CASH HUMAN

CSM1 HUMAN

CSM1 HUMAN

CSM1 HUMAN

CSM1 HUMAN

CSM2 HUMA-2004 (Rel. 43, Created)

DT 29-MRA-2004 (Rel. 44, Leat sunctation update)

DT 29-MRA-2004 (Rel. 44, Leat sunctation update)

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CUB and suchi multiple domains protein 1 precursor (UNOS952/PRO19863).

CON MARMAILE SUCHI STANDARD STAN
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                           SKGVREVNETVTKTPV -> I (in isoform 2)
(Potential).
                                                                                                                                                                                                                                                                                                                        DB 1; Length 3564;
                                                                                                                                                                                                                                                                                                                          Score 36, DB 1; Length 356
Pred. No. 5.3e+02;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                3564 AA; 387865 MW; 70824C55B0674609 CRC64;
                                                                                                                                                                                                     Missing (in isoform 3) /FTId=VSP_009036.
  (GlcNAc. (Gl
    N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
                                                                                                                                                                                                                                                                  FTIG=VSP
                                                                                                                                                                                                       Missing
                                                                                                                                                                                                                                                                                                                            94.7%;
                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 83...
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                |||:||
2733 CVPITC 2738
                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTC 6
                           CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                 VARSPLIC
                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                 CARBOHYD
                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                          VARSPLIC
          STITE FEET STAN SECTION SECTIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Potential).
(Potential).
(Potential).
(Potential).
(Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential) (Potential) (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential)
(Potential)
(Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Potential)
(Potential)
(Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Potential)
Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potenti
          Cytoplasmic (Potential).
CUB 1.
Sushi 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GlcNAc.
(GlcNAc.
(GlcNAc.
(GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GlcNAc.
(GlcNAc.
(GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CONAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GlcNAc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GlcNAc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlcNAc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>@</u>@
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-linked (N-linked (N-linked)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CUB 12.
Sushi 12.
CUB 13.
Sushi 13.
CUB 14.
Sushi 14.
Sushi 16.
Sushi 16.
Sushi 17.
Sushi 17.
Sushi 17.
Sushi 19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-linked
N-linked
N-linked
N-linked
N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-linked
N-linked
                                                                                                                                                                                                                                                                        CUB 7.
Sushi 7.
CUB 8.
Sushi 8.
CUB 9.
Sushi 9.
CUB 10.
                                                                                                                                                                                                                                                                                                                                                                                                                                    CUB 11.
Sushi 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linked
                                                                                                                                                                                                                                   cum 6.
Sushi 6.
CUM 7.
Sushi 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-linked
                                                                                                                                                     CUB 4.
Sushi 4.
CUB 5.
Sushi 5.
                                                                        CUB 2.
Sushi 2.
CUB 3.
Sushi 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sushi
Sushi
Sushi
Sushi
Sushi
Sushi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sushi
Sushi
Sushi
Sushi
Sushi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1644
1792
1805
1882
1882
2149
2154
2187
2358
2394
2445
              955
1015
1034
11184
11197
11399
1454
1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2149
21154
21154
23158
23394
2445
2445
2445
2605
2750
2750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22146
22256
22356
22319
225433
225433
22738
22738
22738
22738
22738
33035
33035
33153
32734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
DOMAIN
DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
DOMAIN
DOMAIN
                                                                                                                                   DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                         DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                    DOMAIN
```

```
9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CUB 11.
Sushi 11.
CUB 12.
Sushi 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CUB 13.
Sushi 13.
CUB 14.
Sushi 14.
Sushi 15.
Sushi 15.
Sushi 17.
Sushi 17.
Sushi 17.
Sushi 17.
Sushi 18.
Sushi 19.
Sushi 21.
Sushi 21.
Sushi 21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sushi 28.
N-linked
N-linked
N-linked
N-linked
N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CUB 10.
Sushi 10.
                                                                                                                                                                                                                                                                                                                                                                                              Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8.
11.8.
                                                                                                             EMBL; AF333704; AAK73475.2; -.
EMBL; AX017307; AAG52948.1; -.
EMBL; AK126936; BAC66754.1; ALT_INIT.
EMBL; AX558174; AAQ88541.1; ALT_INIT.
EMBL; AB667477; BAB67783.1; -.
Genew; HGNC:14026; CSMD1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Sushi 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۷.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sushi
CUB 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sushi
CUB 5.
Sushi
CUB 6.
Sushi
CUB 7.
Sushi
CUB 8.
Sushi
CUB 9.
Sushi
CUB 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sushi
Sushi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sushi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sushi
                                                                                                                                                                                                                                               Sushi_SCR_CCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sushi
                                                                                                                                                                                                     Genew, ......
MIM; 608397; -.....
InterPro; IPR000859; CUB.
InterPro; IPR000436; Sushi_SCR_CC
Fram; PP00431; CUB; 6.
Pfam; PP00084; Sushi; 6.
PROSITE; PS01180; CUB; 14.
PROSITE; PS0923; SUSHI; 28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CUB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CUB
                                                                                                                                                                                                                                                                                                                         Alternative spliting: RIGNAL 26 CHAIN 27 3565 DOWAIN 27 3488 TRANSMEM 3489 3509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2493
2555
2620
                                                                                                                                                                                                                                                                                                                                                                                                                                                              312
409
409
523
583
693
757
757
867
929
1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1624
1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2494
2556
                                                                                                                                                                                                                                                                                                                                                                                                               3510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
     This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                          SEQUENCE OF 825-3565 FROM N.A. (ISOFORM 4).

MEDLINE-22887296; PubMed=12975309; DOI=10.1101/gr.1293003;

A REDLINE-22887296; PubMed=12975309; DOI=10.1101/gr.1293003;

Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J.,

Chen J., Chow B., Crowley C., Currell B., Deuel B., Dowd P.,

A Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S.,

Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J.,

Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J.,

Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,

Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.-H., Yansura D.,

Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,

A Godowski P., Gray A.;

"The secreted protein discovery initiative (SPDI), a large-scale

"Ffort to identify novel human secreted and transmembrane proteins: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IBOId=Q96P27-4; Sequence=VSP_009032, VSP_009033;
-!-TISSUE SPECIFICITY: Weakly expressed in most tissues, except in brain. Expressed at intermediate level in brain, including cereballum, substantia nigra, hippocampus and fetal brain.
-!-DISEASE: Defects in CSWD1 may be a cause of oral and oropharyngeal squamous cell carcinomas (OSCCS). Ref.5 and Ref.6 are however in disagreement: while Ref.6 considers CSMD1 as a strong candidate for OSCCS, Ref.5 thinks it is not.
-!-SIMILARITY: Delongs to the CSMD damily.
-!- SIMILARITY: Contains 28 Sushi (CCP/SCR) domains.
Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T., Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K., Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R., Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S., "Complete sequencing and characterization of 21,243 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Prediction of the coding sequences of unidentified human genes. XXI. The complete sequences of 60 new cDNA clones from brain which code for large proteins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=12696061; DOI=10.1002/gcc.10191;
Toomes C., Jackson A., Maguire K., Wood J., Gollin S., Ishwad C.,
Paterson I., Prime S., Parkinson K., Bell S., Woods G., Markham A.,
Oliver R., Woodward R., Sloan P., Dixon M., Read A., Thakker N.;
"The presence of multiple regions of homozygous deletion at the CSMD1 locus in oral squamous cell carcinoma question the role of CSMD1 in head and neck carcinogenesis.";
Genes Chromosomes Cancer 37:132-140(2003).
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 966-2013 FROM N.A. (ISOFORM 4), AND TISSUE SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISTANE.
PubMed=14506705; DOI=10.1002/gcc.10279;
Scholnick S.B., Richter T.M.;
The role of CSMD1 in head and neck carcinogenesis.";
Genes Chromosomes Cancer 38:281-283(2003).
-!- FUNCTION: Potential suppressor of squamous cell carcinomas.
-!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
-!- ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IsoId=Q96PZ7-3; Sequence=VSP_009030, VSP_009031;
Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=2; Synonyms=Short;
IsoId=096PZ7-2; Sequence=VSP_009034, VSP_009035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Event=Alternative splicing; Named isoforms=4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IsoId=Q96PZ7-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=21456161; PubMed=11572484;
Nagase T., Kikuno R., Ohara О.;
                                                                                                                                                                                                                                                                                                                                                            Genome Res. 13:2265-2270(2003).
                                                                                                 Genet. 36:40-45(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Res. 8:179-187(2001).
                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
```

```
between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Potential.
CUB and sushi multiple domains protein 1.
Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential).
(Potential).
(Potential).
(Potential).
(Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Signal; Sushi; Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cytoplasmic (Potential) CUB 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNAC.
```

```
Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Euchinoidea; Echinacea; Echinoida; Strongylocentrotidae;
Strongylocentrotus.
NCBI_TaxID=7668;
                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
Pubmed=15084738; DOI=10.1073/pnas.0401670101;
Peterson K.J., Lyons J.B., Nowak K.S., Takacs C.M., Wargo M.J.,
McPeek M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00376; ADOMET SYNTHETASE 1; 1.
PROSITE; PS00377; ADOMET SYNTHETASE 2; 1.
ATP-binding; Magnesium; Metal-binding; One-carbon metabolism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.1%; Score 35; DB 2; Length 318; 83.3%; Pred. No. 81; tive 1; Mismatches 0; Indels
                                                                                                                                           92.1%; Score 35; DB 2; Length 257; 66.7%; Pred. No. 66; 1.1ve 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318 AA; 34519 MW; F4BD7C686403E35A CRC64;
                                                                                                                  28090 MW; 00D199E990BD0752 CRC64;
                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004 (TrEMBLrel. 27, Last sequence update) C5-JUL-2004 (TrEMBLrel. 27, Last annotation update) Methiconie adenosyltransferase (Fragment). Strongylocentrotus purpuratus (Purple sea urchin).
                                                                                                                                                                                                                                                                                                         318 AA.
             HSSP; P3555; 1EMN.
InterPro; IPR002919; Cysrich TIL.
InterPro; IPR006149; EB_region.
InterPro; IPR006209; EGF_like.
Pfam; PF01683; EB; 1.
PROSITE; PS00122; EGF_1; UNKNOWN 2.
PROSITE; PS01186; EGF_2; UNKNOWN 2.
SEQUENCE 257 AA; 28090 MW; 00D199
                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel. 27, Created)
EMBL; AACB01000047; EAA40245.1; -.
HSSP; P35555; 1EMN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGRFAMS; TIGR01034; metK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 83.5.
Ender 5, Conservative
                                                                                                                                                                            4; Conservative
                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Potassium; Transferase
                                                                                                                                                                                                                        |:|:||
64 CIPITC 69
                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTC 6
                                                                                                                                                                                                       1 CVPLTC 6
                                                                                                                                                                                                                                                                                                         Q6PTG3,
Q6PTG3;
05-JUL-2004 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NON TER
NON TER
SEQUENCE
                                                                                                                                                Query Match
                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                              RESULT 11
                                                                                                                                                                                                                                                                                             δ
    ð
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
PubMed=15346342;
Fu L., Terai M., Matsukura T., Herrero R., Burk R.D.;
"Codetection of a Mixed Population of candiHV62 Containing Wild-Type and Disrupted El Open-Reading Frame in a 45-Year-Old Woman with Normal
                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                              GGCNAC. .) (Potential).
GGCNAC. .) (Potential).
GGCNAC. .) (Potential).
GGCNAC. .) (Potential).
GGCNAC. .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=WB C6;
Mortison H.G., McArthur A.G., Adam R.D., Aley S.B., Gillin F.D., Olsen G.J., Sogin M.L.;
Olsen G.J., Sogin M.L.;
"Draft sequence of the Giardia lamblia genome.";
Submitted (MAR-2003) to the EMBL/GenBank/DBJ databases.
-- CAUTION: The sequence shown here is derived from an EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is preliminary data.
                                                            (Potential). (Potential). (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                .
0
                                                                                                                                    Length 3565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Diplomonadida, Hexamitidae, Giardiinae, Giardia.
NCBI_TaxID=184922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.1%; Score 35; DB 2; Length 148; 83.3%; Pred. No. 39; cive 1; Mismatches 0; Indels
                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                  Human papillomavirus type 62.
Viruses; dsDNA viruses, no RNA stage; Papillomaviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. Infect. Dis. 190:1303-1309(2004).

EMBL, AY395706; AAR32246.1; -.

InterPro; IPRO01334; E6.

Pfam; PPG0188: E6; 17061 MW; COEF71566CD02689 CRC64;

SEQUENCE 148 AA; 17061 MW; COEF71566CD02689 CRC64;
                                                                                                                                                                                                                                                                                                                        25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-WAR-2004 (TrEMBLrel. 26, Created)
01-WAR-2004 (TrEMBLrel. 26, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                    Score 36; DB 1; I
Pred. No. 5.3e+02;
; Mismatches 0;
                     GlcnAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257 AA
    N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
N-linked
                                                                                                                                                                                                                                                                                                                                                                   Putative transforming protein E6.
                                                                                                                                  94.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLP 164 18200 17427.
Giardia lamblia ATCC 50803.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 83.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                 1185
1198
1400
1455
1573
1645
                                                                                                                                                                                                                        2734 CVPITC 2739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  106 CMPLTC 111
                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTC 6
                                                                                                                                                                                             1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                               Papillomavirus.
NCBI_TaxID=37117;
                   1035
1185
1198
1400
1455
1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cytology.";
                   CARBOHYD
CARBOHYD
                                                                                          CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                    Query Match
      CARBOHYD
                                                CARBOHYD
                                                               CARBOHYD
                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q7QYY8
```

0676V2

RESULT 9
067672
067672
AC 66767
DD 25-00
DT 25-00
DT 25-00
DT 25-00
DF 28-00
DF 28-0

Q676V2

Matches

ô

Gaps

ò g

QEPTEO

셤

RESULT 12
066PTE0
076PTE0
DT 065-JU
DT 055-JU

```
Corby N.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.

Lybmitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.

EMBL; AR275636; AAG00977.1; -..

EMBL; AL606722; CAE17596.1; -..

R ZFIN; ZDB-GENE-980526-16; ednrbl.

GO; GO:0016021; C:integral to membrane; IEA.

GO; GO:0004872; F:endothelin receptor activity; IEA.

GO; GO:0001884; F:rhodopsin-like receptor activity; IEA.

R GO; GO:0001889; F:rhodopsin-like receptor protein signalin. .;

R GO; GO:0007186; P:G-protein coupled receptor protein signalin. .;

R InterPro; IPR00019; EMB receptor.

InterPro; IPR001112; ETB receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
SEQUENCE FROM N.A. Parichy D.M., Kelsh R.N., Mellgren E., Lopes S., Rawls J., Johnson S.L.; Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92.1%; Score 35; DB 2; Length 426; 83.3%; Pred. No. 1.1e+02; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole embryo;
STRAIN=C57BL/6J; TISSUE=Whole embryo;
Subsen C., Hansen C., Hayashizaki Y., Byskov A., Tommerup Submitted (APR-200) to the EMBL/GenBank/DDBJ databases.
EMBL; AR760431; AAF70319.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 83.3%; Pred. No. 1.2e+02; 5; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           426 AA; 48770 MW; F92C0B0B3046E4A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     468 AA; 51133 MW; 85768E10D7D34FDA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
protein A (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00001; 7tm 1; 1.

PRINTS; PR0057; ENDOTHELINBR.

PRINTS; PR0036; ENDOTHELINR.

PRINTS; PR00237; GPCRRHODOSN.

PROSITE; PS00237; G PROTEIN RECEP F1 1; UNKNOWN 1.

PROSITE; PS50262; GPROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEROPS; M43.004; -. MGD; MGI:97479; Pappa.
GO; GO:0004175; P:endopeptidase activity; IDA.
INTERPRO; IPR000800; Notch_region.
INTERPRO; IPR000436; Sushi_SCR_CCP.
Pfam; PF00084; Sushi; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2003 (TrEMBLrel. 25, Pregnancy-associated plasma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS50923; SUSHI; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMART; SM00032; CCP; 4.
SMART; SM00004; NL; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 5; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
Les 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  265 CMPLTC 270
                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=Pappa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9JK57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09JK57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Corporation Activation in the following and diphosphate + S-adenosyl-L-methionine + No. O = phosphate + Corporate in the following in the foll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Estimating metazoan divergence times with a molecular clock.", Proc. Natl. Acad. Sci. U.S.A. 101:6536-6541(2004).
-!- FUNCTION: Catalyzes the formation of S-adenosylmethionine from methionine and APP (By similarity).
-!- CATALYTIC ACTIVITY: ATP + L-methionine + H(2)O = phosphate +
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
Pubmed=15084738; DOI=10.1073/pnas.0401670101;
Peterson K.J., Lyons J.B., Nowak K.S., Takacs C.M., Wargo M.J.,
McPeek M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00376; ADOMET SYNTHETASE 1; 1.
PROSITE; PS00377; ADOMET_SYNTHETASE_2; 1.
ATP-binding; Magnesium; Metal-binding; One-carbon metabolism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Endothelin receptor bl (SI:dZ27N24.3) (Endothelin receptor B)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.1%; Score 35; DB 2; Length 322; 83.3%; Pred. No. 82; cive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   322 322
322 AA; 34973 MW; 320B31E1784E7392 CRC64;
                                                                                                                                                                                                                                                                                                                                 Eukaryota; Choanoflagellida; Codonosigidae; Monosiga
                                                                                                                                                                                                                    , Last sequence update)
, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             426 AA
                                                                                                                                         322 AA
                                                                                                                                                                                                                                                                             Methionine adenosyltransferase (Fragment).
                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                       05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGRFAMS; TIGR01034; metK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 83.3
nes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Potassium; Transferase.
                                                                                                                                                                                                                                                                                                            Monosiga brevicollis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120 CMPLTC 125
117 CMPLTC 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=81824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=ednrb1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

ô

Gaps

ö

Gaps

Q9DGM2;

Q9DGM2

RESULT 13

Best Loc Matches

ઠે g Job time : 38.7397 secs

```
TISSUE-Liver;

MEDLINE-9811637; PubMed=9651365; DOI=10.1074/jbc.273.28.17680;

MEDLINE-9811637; PubMed=9651365; DOI=10.1074/jbc.273.28.17680;

MADLINE-9811637; PubMed=961365; DOI=10.1074/jbc.273.28.17680;

MADLINE-9811637; PubMed=9651365; DOI=10.1074/jbc.273.28.17680;

MADLINE-9811637; PubMed=9651365; DOI=10.1074/jbc.273.28.17680;

MADLINE-9811637; PubMed=9651365; DOI=10.1074/jbc.273.28.17680;

MADLINE-10.1074; MADLINE-10.1074; MADLINE-10.1074;

MADLINE-10.1074; MADLINE-10.1074;

MADLINE-10.1074; MADLINE-10.1074;

MADLINE-10.1074; MADLINE-10.1074;

MADLINE-10.1074; MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10.1074;

MADLINE-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstarion the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lab-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                          16-OCT-2001 (Rel. 40, Last sequence update)
.05-JUL-2004 (Rel. 44, Last annotation update)
[Pyruvate dehydrogenase [Lipoamidel]-phosphatase 2, mitochondrial precursor (EC 3.1.3.43) (PDP 2) (Pyruvate dehydrogenase phosphatase, Name=Pdp2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mitochondrion (Potential). [Pyruvate dehydrogenase [Lipoamide]]-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92.1%; Score 35; DB 1; Length 530; 83.3%; Pred. No. 1.3e+02; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hydrolase; Magnesium; Mitochondrion; Protein phosphatase;
Transit peptide.

TRANSIT 67 Mitochondrion (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SAB688FAC78AD9CD CRC64;
                                                                                                                                                                                                530 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               phosphatase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR00022; PP2C.
InterPro; IPR01932; PP2C-like.
Pfam; PP00481; PP2C. 2.
SMART; SM00331; PP2C SIG; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            530 AA; 59654 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AF062741; AAC40168.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5; Conservative
                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS01032; PP2C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RGD; 628812; Pdp2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10116;
                                                      251
~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                              ò
```

Search completed: April 1, 2005, 09:26:05

303 CLPLTC 308

셤

1 CVPLTC 6

Mon Apr

us-09-761-636a-12.open.rag

```
18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                  Hughes RA,
                                                                                                                                                                                                                                                                                                             Disulfide-bond
                                                                                                                                                                                                                                                                                                                                    WO200152875-A1
                                                                                                                                                                                                                        26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                  26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                   Achen MG,
                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      residues.
                                                                                                                                                                                     AAU0453
                                                                                                                                                                                            Human pro
Human pro
Human pro
NOV16 pro
Human pro
Human pro
Human C3b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human pro
Human pro
Human pro
Human hea
Human pro
Human pro
                                                                                                                                                                                                                                                                                                                                                         Human ORF
Human Imm
                                                                                                                                                                                                                                                                                                                                                 Aau04531 VEGF base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Propionib
                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                          1, 2005, 03:27:37; Search time 45:2877 Seconds (without alignments) 51.240 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Abg79168
Adh71168
Adh71138
Adh71138
Adj70480
Adh71144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Abm44718
Ada55489 I
                                                                                                                                                                                                                                                                                                                                                               Aduo0816
Adh71152
Adh71150
Adh71150
Adh71150
Adh71164
Adh71162
Ade20787
                                                                                                                                                                                                                                                                                                                                                                                                                                 Aae20900
                                                                                                                                                                                                                                                                                                                                                                                                                                         Aae20788
                                                                                                                                                                                                                                                                                                                                                                                                                                                Aae20789
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aae20901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aau48199
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                          2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                             - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                             AAB83372
ADH71164
AAB83371
ADH71162
AAE20787
                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE20789
AAE20901
ABG79168
ADH71168
ADH71166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADJ70480
ADH71144
ADH71136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU48199
ABM44718
ADA55489
                                                                                                                                                                                                                                                                                                                                                                AAU00816
ADH71152
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAE20900
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE20788
                                                                                                                                                                                                                                                                                                                                                  AAU04531
                                                                                                                                                                                                                                                                                                                                                          ABB53096
                                                                                                            Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                     geneseqp2003as:*
geneseqp2003bs:*
geneseqp2004s:*
                                                                                                                                                                                                          A_Geneseq_16Dec04:*
                                                                                                                                                                                                                geneseqp1980s:*
geneseqp1990s:*
                                                                                                                                                                                                                                       geneseqp2001s:*
geneseqp2002s:*
                                                                                                                                                                                                                               geneseqp2000s:*
                                                                                                                                                      seq length: 0
seq length: 200000000
                                                                     US-09-761-636A-12
38
                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                           95
95
310
                                                                                      1 CVPLTC 6
                                                                                                     BLOSUM62
                                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                    Score
                                                                               Perfect score:
                             OM protein
                                                                                                                                                       Minimum DB
Maximum DB
                                                                                      Sequence:
                                                                                                                          Searched:
                                                                                                                                                                                                          Database
                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                         Result
                                                                                                                                                                                                                                                                                                                                     è
```

	Propionib Streptoco
Add27716 Add46650 Ade55158 Add33741 Add33742 Add33742 Add33743 Add33743 Add53743 Adb711138 Adb711138 Adb711138 Adb711138 Adb6711138 Adb6711138 Adb6711138 Adb6711138 Adb6711138	Abm62744 Abp29076
ADD27716 ADD26650 ADD55158 ADD39740 ADQ39742 ADQ39742 ADU39742 ADU39743 ADU39743 ADD39743 ADD71142 ADH71142 ADH71142 ADH71142 ADH71142 ADH71146 ADB04659 AAU6625	ABM62744 ABP29076
C C C C C C C C C C C C C C C C C C C	9 5
368 530 530 1233 1233 14420 1623 1623 1623 1752 1752 170 100 100 100 100 100 100 100 100 100	99
000000000000000000000000000000000000000	86.8 86.8
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	3 3 3 3
77777777777777777777777777777777777777	44 45

#### ALIGNMENTS

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. AAU04531 standard; peptide; 6 AA VEGF based monocyclic peptide 9. (first entry)

 .6
 /note= "This bond cyclises the peptide" Location/Qualifiers

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

(LUDW-) LUDWIG INST CANCER RES

Stacker S,

Cendron A;

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine

Claim 49; Page 32; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human MSEPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

polypeptides and polynucleotides, useful for treating diseases such cancer, Alzheimer's disease, atherosclerosis, diseases associated with er, comprises polypeptides and polynucleotides of open reading frame

as cancer,

proteins.

liver,

Claim 11; Page 82; 111pp; English.

The present invention provides the protein and coding sequences of human ORFX, where X is any number between 1 and 132. These sequences can be used to diagnose and treat ORFX related disorders, including cancer, hyperproliferative and dysproliferative disorders, neurodegenerative disorders, disorders related to organ transplantation or cardiovascular immunomodulatory, haematopoiesis regulating, tissue growth, inhibin or activin, chemctactic or chemokinetic, haemostatic or thrombolytic and/or antiinflammatory activities. The present sequence is one of the ORFX proteins of the invention

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides to comprising 2 linked monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, concavery concurrent of ymphanglogenesis in a mammal with a condition characterised by anglogenesis neammal with a condition characterised by anglogenesis, neovascularisation or lymphanglogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angloplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive carebrovascular accident, post-angloplasty restenosis, head, heat or clarama, substance-induced neovascular sequelae, or chronic liver sequelae, hypertension induced neovascular sequelae, or chronic liver sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability cor brain. The peptides are also used to induced blood vessels and lymphatic or brain. The peptides are used to induced by VEGF. Or D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat and the contributed the contributed are used to intente and and any and any and any accidented and any accidented and any and any and any accidented and any accidented and any and any accidented and any and any and any accidented and any accidented and any and any accidented any acc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diabetic retinopathy
```

## Sequence 6 AA;

```
Gaps
                              ;
100.0%; Score 38; DB 4; Length 6; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
                              6; Conservative
   Query Match
Best Local Similarity
                                Matches
                                                             8
```

ö

1 CVPLTC 6 CVPLTC

ABB53096

ABB53096 standard; protein; 144 AA. 12-FEB-2002 (first entry) ABB53096;

Human ORF2 protein

ORFX; human; pharmacogenomics; cancer; hyperproliferative disorder; dysproliferative disorder; neurodegenerative disorder; organ transplant; cardiovascular disease; cytokine; cill proliferation; immunomodulatory; cell differentiation; haematopoiesis; tissue growth; thrombolytic; notropic; neuroprotective; antiarthritic; antimicrobial; vulnerary; cytostatic; antidiabetic; virucide; antimicropial; anticonvulsant; vasotropic; antiparkinsonian; dermatological; antirheumatic; antiunor; antiulcer; osteopathic; tranquiliser; cerebroprotective; hepatotropic; antiinflammatory; tumour inhibition

Homo sapiens.

WO200177155-A2

18-OCT-2001.

06-APR-2001; 2001WO-US040469. 06-APR-2000; 2000US-0195576P.

05-APR-2001; 2001US-00826734

(CURA-) CURAGEN CORP.

Shimkets RA; Leach MD, Mishnu VS, Vernet CAM, Kekuda R; Zerhusen BD, Fernandes E, 

WPI; 2002-049131/06. N-PSDB; ABA90195.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; Immunoglobulin superfamily protein; IgSF; Immune response; inflammatory response; cell-cell interaction; cell-surface recognition; neural disorder; immune system disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; pulmonary disorder; cardiovascular disorder; renal disorder; proliferative disorder; cancer; acomon variable adhesion deficiency syndrome; AIDS; SCID; acquired immunodeficiency syndrome; anaemia; rheumatoid arthritis; Alzheimer's disease; Crohn's disease; liver cancer; leukaemia; Alzheimer's lymphoma; Parkinson's disease; Huntingdon's disease; dementia; artherosclerosis; stroke; diabetes mellitus; Addison's disease; urticaria; severe combined immunodeficiency; antibody.
                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                           94.7%; Score 36; DB 5; Length 144; 83.3%; Pred. No. 2.4e+02; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           Human Immunoglobulin superfamily, IgSF, protein #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . .52
label= Immunoglobulin_like_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .21. .127
'label= Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         374. 383
/label= Immunogenic_epitope
392. .404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . .11
|abel= Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3. .79
|abel= Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              253. .260
/label= Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'label= Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                         AAU00816 standard; protein; 613 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1146
/label= Im-
23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .336
/label= Im-
                                                                                                                                                                                                                  Query Match
Best Local Similarity 83.33,
                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2001 (first entry)
                                                                                                                                                                                                                                                                                                117 CVPITC 122
                                                                                                                                                                                                                                                                           1 CVPLTC 6
                                                                                                                                                                                                         Sequence 144 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                AAU00816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                    RESULT 3
AAU00816
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                 원
```

```
anorectic; antidiabetic; immunomodulator; neuroprotective; nootropic; anorectic; antidiabetic; antimicrobial; antilipaemic; gene therapy; vaccine; cancer; cachexia; Alzheimer's disease; Parkinson's disease; obesity; diabetes; infectious disease; metabolic syndrome X; dyslipidaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-0387702P.
2002US-0387836P.
2002US-0387859P.
2002US-0387933P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0389884P.
2002US-0390006P.
2002US-0390209P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002US-0388022P.
2002US-0388096P.
2002US-0389123P.
                                                                                                                                                                                                                                                                                       2002US-0386796P.
2002US-0386816P.
                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0387610P.
2002US-0387625P.
                                                                                                                                                                                                                                                                                                                                                                                                                             2002US-0387634P.
2002US-0387668P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-0387934P.
2002US-0387960P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002US-0389118P.
2002US-0389120P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002US-0389144P.
2002US-0389146P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-0389729P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0390763P.
2002US-0396706P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0401628P.
2002US-0402156P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002US-0402256P.
2002US-0402389P.
                                                                                                                                                            03-JUN-2003; 2003WO-US017430
                                                                                                                                                                                                                                                               2002US-0386864P.
2002US-0387016P.
                                                                                                                                                                                                                                                                                                                2002US-0386931P.
2002US-0386942P.
                                                                                                                                                                                                                                                                                                                                                                                          002US-0387535P
                                                                                                                                                                                                                                                                                                                                                                                                                                                      002US-0387696P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002US-0402786P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-0402821P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0403459P
                                                                                                                                                                                                                                       2002US-0386376P
                                                                                                                                                                                                                                                   2002US-0386453P
                                                                                                                                                                                                                                                                                                                                                                             2002US-0387400P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0403532P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0406317P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002US-0406182P
                                                                                                           WO2003102155-A2.
                                                                                     Homo sapiens.
                                                                                                                                                                                                                                      06-JUN-2002;
                                                                                                                                                                                                                                                               06-JUN-2002;
                                                                                                                                                                                                                                                                                       07-JUN-2002;
07-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-AUG-2002;
26-AUG-2002;
                                                                                                                                                                                                                                                                                                                             07-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                 08-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                             10-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                   11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                               11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                     11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-JUN-2002;
 The sequence is a Human Immunoglobulin superfamily, IgSF, protein, a diverse family of proteins involved in cell-cell interactions, cell-surface recognition, intercellular communication and immune and inflammatory responses. Polypeptides and antibodies directed to collise of the present invention are useful to provide immunological probes for differential identification of tissues. Antibodies can be used to assay levels of polypeptides encoded by polynucleotides of the cinvention. Polypeptides of the present invention can be used to treat or prevent diseases or conditions such as neural disorders, immune system of sorders, pulmonary disorders, reproductive disorders, gastrointestinal disorders, proliferative disorders, and/or cancerous diseases and disorders. Examples of the invention are also useful in treating the above disorders. Examples of the disorders include common variable adhesion deficiency syndrome, acquired immunodeficiency syndrome (AIDS), anaemia, rheumatoid arthritis, Alzheimer's disease, Crohn's disease, Huntingdon's disease, dementia, artherosolerosis, stroke, diabetes mellitus, Addison's disease, urticaria, severe combined immunodeficiency (SCID), many more examples of diseases and disorders are given in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                            Isolated nucleic acid molecule encoding a human secreted protein is used in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94.7%; Score 36; DB 4; Length 613; 83.3%; Pred. No. 8.7e+02; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human protein of the invention NOV4i SEQ ID NO:48.
          184. .500
|label= Immunogenic_epitope
                                                                                   605. .610
/label= Immunogenic_epitope
'label= Immunogenic_epitope
                                   511. .517
/label= Immunogenic_epitope
                                                           577. .583
/label= Immunogenic_epitope
                                                                                                                                                                                                                                                                                                                                                               Claim 11; Page 238-239; 247pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADH71152 standard; protein; 713 AA
                                                                                                                                                                         29-AUG-2000; 2000WO-US023662
                                                                                                                                                                                                 99US-0152248P
                                                                                                                                                                                                                      (HUMA-) HUMAN GENOME SCI INC (NIJJ/) NI J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5; Conservative
                                                                                                                                                                                                                                                               Young PE, Ruben SM,
                                                                                                                                                                                                                                                                                      WPI; 2001-203084/20.
N-PSDB; AAS00146.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||:||
264 CVPITC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 613 AA;
                                                                                                                         WO200118176-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           specification
                                                                                                                                                                                                 03-SEP-1999;
                                                                                                                                                15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADH71152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
           Region
                                    Region
                                                             Region
                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
ADH71152
ID ADH7
XX
AC ADH7
XX
DT 25-N
XX
DE HUME
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
25-MAR-2004 (first entry)
                                                                                                                                                                                                                                 dyslipidaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JUN-2002;
                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                        11-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a novel isolated polypeptide (NOVX). A polypeptide of the invention has cytostatic, immunomodulator, polypeptide of the invention has cytostatic, immunomodulator, antimicrobial, and an entilipaemic activity, and may have a use in gene therapy, and as a vaccine. The polypeptides are encoded by NOVX polymucleotides comprising any of the 303 fully defined nucleotide sequences given in the encoded polypeptide is useful in the manufacture of a medicament for treating a syndrome associated with a human disease. The polypeptide, polypucleotide and antibody are useful in disagnosing, treating or preventing NOVX-associated disorders, e.g. cancer, cachexia, alseases, metabolic syndrome X or dyslipidaemias. The nucleic acids are diseases, metabolic syndrome X or dyslipidaemias. The nucleic acids are typing, preventive medicine, and pharmacogenomics. The present sequence typing, preventive medicine, and pharmacogenomics. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alsobrook JP, Alvarez E, Anderson DW, Boldog FL, Casman SJ;
Catterton E, Chapoval A, Crabtree-Bokor JR, Edinger SR, Ellerman K;
Ettenberg S, Gangolli EA, Gerlach VL, Gorman L, Gunther E, Guo X;
Gusev VY, Hermann JL, Ji W, Kekuda R, Li L, Liu X, Macdougall JR;
Maclachlan T, Malyankar UM, Mezick AJ, Millet I, Mishra VS;
Addigaru M, Petturajan M, Pena CEA, Peyman JA, Raha D, Rastelli L;
Rieger DK, Rothenberg ME, Sciore P, Shenoy SG, Shimkets RA;
Smithson G, Spytek KA, Stone DJ, Vernet CAM, Voss EZ, Zhong M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New NOVX polypeptides and nucleic acid molecules useful for preventing c
treating NOVX-associated disorders, e.g. cancer, diabetes, infection or
obesity, and in chromosome mapping, tissue typing or pharmacogenomics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 94.7%; Score 36; DB 8; Length 713; Local Similarity 83.3%; Pred. No. 1e+03; es 5; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 4; SEQ ID NO 48; 1880pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADH71148 standard; protein; 776 AA.
                             2002US-0406240P.
2002US-0410084P.
2002US-0412731P.
2002US-0414801P.
2002US-0414839P.
2002US-0414840P.
2002US-0414964P.
2002US-041496P.
2002US-0417186P.
2002US-0417186P.
2002US-0417186P.
                                                                                                                                                                                                                                                                                                                                                                             2002US-0422690P
                                                                                                                                                                                                                                                                                                                                                                                                                                        2002US-00423798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-NOV-2002; 2002US-0425453P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2004-081935/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                587 CVPITC 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-081935
N-PSDB; ADH71151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 713 AA;
                                                                                      20-8EP-2002;
23-8EP-2002;
30-8EP-2002;
30-8EP-2002;
30-8EP-2002;
09-0CT-2002;
09-0CT-2002;
23-0CT-2002;
23-0CT-2002;
                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhong H;
```

ADH71148

RESULT 5
ADH71148
ID ADH7
XX
AC ADH7
XX

Best Loc Matches

g

```
human, cytostatic; immunomodulator; neuroprotective; nootropic; anorectic; antidiabetic; antimicrobial; antilipaemic; gene therapy; vaccine; cancer; cachexia; Alzheimer's disease; Parkinson's disease; obesity; diabetes; infectious disease; metabolic syndrome X;
                 Human protein of the invention NOV4g SEQ ID NO:44
                                                                                                                                                                                                              05-JUN-2002) 2002US-0386047P.
06-JUN-2002) 2002US-0386346P.
06-JUN-2002) 2002US-0386864P.
06-JUN-2002) 2002US-0386864P.
07-JUN-2002) 2002US-038681EP.
07-JUN-2002) 2002US-038691EP.
07-JUN-2002) 2002US-038691EP.
07-JUN-2002) 2002US-038691EP.
07-JUN-2002) 2002US-038691EP.
                                                                                                                                                                                                                                                                                                                                                2002US-0387535P
2002US-0387610P
2002US-0387634P
2002US-0387668P
2002US-0387668P
2002US-0387668P
2002US-038768P
2002US-038789P
                                                                                                                                                                                 2002US-0385120P.
2002US-0385784P.
2002US-0386041P.
2002US-0386047P.
                                                                                                                                                                                                                                                                                                                  2002US-0387262P.
2002US-0296960P.
2002US-0387400P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0389123P.
2002US-0389118P.
2002US-0389120P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0389146P.
2002US-0389729P.
2002US-0389742P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002US-0389884P.
2002US-0390006P.
2002US-0390209P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0402256P.
2002US-0402389P.
2002US-0402786P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002US-0389144P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0401628P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002US-0402816P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          002US-0402832P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-0403532P.
2002US-0403563P.
                                                                                                                                                               03-JUN-2003; 2003WO-US017430
                                                                                                                       WO2003102155-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-AUG-2002;
```

human, cytostatic, immunomodulator, neuroprotective, nootropic, anorectic; antidiabetic, antimicrobial; antilipaemic; gene therapy; vaccine; cancer; cachexia; Alzheimer's disease; Parkinson's disease; obesity; diabetes; infectious disease; metabolic syndrome X; dyslipidaemia.

WO2003102155-A2

Homo sapiens.

Human protein of the invention NOV4h SEQ ID NO:46.

25-MAR-2004 (first entry)

ADH71150;

```
polypeptide of the invention has cytostatic, immunomodulator, neuroprotective, nootropic, anorectic, antidiabetic, antimicrobial, and neuroprotective, nootropic, anorectic, antidiabetic, antimicrobial, and antilipaemic activity, and may have a use in gene therapy, and as a vaccine. The polypeptides are encoded by NOWY polynucleotides comprising any of the 303 fully defined nucleotide sequences given in the operation. The polypeptide is useful in the manufacture of a medicament for treating a syndrome associated with a human disease. The polypeptide, polynucleotide and antibody are useful in diagnosing, treating or preventing NOWA associated disorders, e.g. cancer, cachexia, Alzheimer's disease, Parkinson's disease, obesity, diabetes, infectious further used as hybridisation probes, in chromosome mapping, tissue typing, preventive medicine, and pharmacogenomics. The present sequence typing, preventive medicine, and pharmacogenomics. The present sequence typing, preventive medicine, and pharmacogenomics. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New NOVX polypeptides and nucleic acid molecules useful for preventing or treating NOVX-associated disorders, e.g. cancer, diabetes, infection or obesity, and in chromosome mapping, tissue typing or pharmacogenomics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alsobrook JP, Alvarez E, Anderson DW, Boldog FL, Casman SJ;
Catterton E, Chapoval A, Crabtree-Bokor JR, Edinger SR, Ellerman K;
Ettenberg S, Gangolli EA, Gerlach VL, Gorman L, Guther E, Guo X;
Gusev VY, Herrmann JL, Ji W, Kekuda R, Li L, Liu X, Macdougall JR;
Maclachlan T, Malyankar UM, Mezick AJ, Millet I, Mishra VS;
Padigaru M, Parturajan M, Pena CEA, Peyman JA, Raha D, Rastelli L;
Rieger DK, Rothenberg ME, Scione P, Shenoy SG, Shimkets RA;
Smithson G, Spytek KA, Stone DJ, Vernet CAM, Voss EZ, Zhong M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhong M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel isolated polypeptide (NOVX). A polypeptide of the invention has cytostatic, immunomodulator,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 36; DB 8; Length 776;
Pred. No. 1.1e+03;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 4; SEQ ID NO 44; 1880pp; English.
13-AUG-2002; 2002US-0406317P.
26-AUG-2002; 2002US-0406182P.
26-AUG-2002; 2002US-0406182P.
27-AUG-2002; 2002US-0406182P.
27-AUG-2002; 2002US-0406240P.
20-SEP-2002; 2002US-041084P.
23-SEP-2002; 2002US-0412731P.
30-SEP-2002; 2002US-0414839P.
30-SEP-2002; 2002US-041483P.
30-SEP-2002; 2002US-041483P.
30-SEP-2002; 2002US-041486P.
30-SEP-2002; 2002US-041486P.
30-SEP-2002; 2002US-041496P.
30-CT-2002; 2002US-041786P.
31-CT-2002; 2002US-041786P.
31-CT-2002; 2002US-04130P.
31-CT-2002; 2002US-0420639P.
31-CT-2002; 2002US-0420639P.
31-CT-2002; 2002US-042136P.
31-CT-2002; 2002US-042130P.
                                                                                                                                                                                                                                                                                                                                                                                                                                            12-NOV-2002; 2002US-0425453P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 83.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2004-081935/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ADH71147.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 776 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhong H;
```

```
2002US-0387262P.
2002US-0296960P.
2002US-0387400P.
2002US-0387535P.
2002US-0387610P.
                                                                                                                                                                                                                                                                                                                         2002US-0388022P.
2002US-0388096P.
2002US-038113P.
2002US-0389118P.
2002US-038914P.
2002US-0389144P.
2002US-0389146P.
                                                                                                                                                                                                                                                                             2002US-0387696P.
2002US-0387702P.
2002US-0387836P.
                                                                                                                                                                            2002US-0386864P.
2002US-0387016P.
                                                                                                                                                                                                                                                                2002US-0387634P.
2002US-0387668P.
                                                                                                                                                                                                                                                                                                2002US-0387859P.
2002US-0387933P.
                                                                                                                                                                                                                                                                                                             2002US-0387934P.
                                                                                                                          03-JUN-2003; 2003WO-US017430
                                                                                                                                                               2002US-0386376P
                                                                                                                                                                                          2002US-0386796P.
2002US-0386816P.
                                                                                                                                                          2002US-0386047P
                                                                                                                                                                                                       2002US-0386931P
                                                                                                                                                                                                                    2002US-0386971P
                                                                                                                                                                                                                                                                                                                                                                                    3002US-0389884P
                                                                                                                                                                                                                                                                                                                                                                                          2002US-0390006P
                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-0401628P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002US-0403459P
                                                                                                                                                                            06-JUN-2002;
06-JUN-2002;
07-JUN-2002;
                                                                                                                                                               06-JUN-2002;
                                                                                                                                                          05-JUN-2002;
                                                                                                                                                                                                07-JUN-2002;
                                                                                                                                                  05-JUN-2002;
                                                                                                                                                                                                                    07-JUN-2002;
                                                                                                                                                                                                                          07-JUN-2002;
                                                                                                                                                                                                                                 08-JUN-2002;
                                                                                                                                                                                                                                             10-JUN-2002;
                                                                                                                                                                                                                                                                      11-JUN-2002;
                                                                                                                                                                                                                                                                                                 11-JUN-2002;
                                                                                                                                                                                                                                                                                                             12-JUN-2002;
                                                                                                                                                                                                                                                                                                                    12-JUN-2002;
                                                                                                                                                                                                                                                                                                                           12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                 12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                           14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                               17-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                  19-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-AUG-2002;
                                                                                                                                                                                                                                                                                                                                              14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                  14-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                        21-JUN-2002;
                                                                                                            11-DEC-2003
```

; 0

Gaps

; 0

ADH71150 ID ADH71150 standard; protein; 776 AA.

RESULT 6

|||:|| CVPITC 655 CVPLTC 6

650

Š 셤

```
2002US-0420639P.
2002US-0421156P.
2002US-0422690P.
2002US-0423130P.
                                               2002US-0412528P.
2002US-0412528P.
2002US-0412731P.
                                                                 2002US-0414801P.
2002US-0414839P.
2002US-0414840P.
                                                                                   2002US-0414954P.
2002US-0417186P.
2002US-0417406P.
                        2002US-0403617P.
                             2002US-0406182P.
2002US-0406355P.
                                          2002US-0406240P.
                                                                                                                              2002US-00423798.
                  2002US-0406317P.
                                                                                                                                     2002US-0423798P
                                                                                                                                          2002US-0425453P
                                                                                                                                                      (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                             WPI; 2004-081935/08.
N-PSDB; ADH71149.
                                                                                               09-OCT-2002;
23-OCT-2002;
28-OCT-2002;
                             26-AUG-2002;
26-AUG-2002;
                                                 12-SEP-2002;
                                                                        30-SEP-2002;
                                         27-AUG-2002;
                                                             23-SEP-2002;
                                                                   30-SEP-2002;
                                                                                           09-OCT-2002;
                                                      20-SEP-2002;
                                                                                                                  31-OCT-2002;
                  13-AUG-2002;
                                                                                    30-SEP-2002;
                                                                                                                        01-NOV-2002;
                                                                                                                              05-NOV-2002;
                                                                                                                                     05-NOV-2002
                                                                                                                                                                                                                   ï
                                                                                                                                                                                                                   Zhong
```

Alsobrook JP, Alvarez E, Anderson DW, Boldog FL, Casman SJ;
Catterton E, Chapoval A, Crabtree-Bokor JR, Edinger SR, Ellerman K;
Ettenberg S, Gangolli EA, Gerlact VL, Gorman L, Gunther E, Guo X;
Gusev VY, Herrmann JL, Ji W, Kekuda R, Li L, Liu X, Macdougall JR;
Maclachlan T, Malyankar UM, Mezick AJ, Millet I, Mishra VS;
Badigaru M, Penturajan W, Pena CEA, Peyman JA, Raha D, Rastelli L;
Rieger DK, Rothenberg ME, Sciore P, Shenoy SG, Shimkets RA;
Smithson G, Spytek KA, Stone DJ, Vernet CAM, Voss EZ, Zhong M;

New NOVX polypeptides and nucleic acid molecules useful for preventing or treating NOVX-associated disorders, e.g. cancer, diabetes, infection or obesity, and in chromosome mapping, tissue typing or pharmacogenomics.

# Example 4; SEQ ID NO 46; 1880pp; English.

The invention relates to a novel isolated polypeptide (NOVX). A polypeptide of the invention has cytostatic, immunomodulator, polypeptide of the invention has cytostatic, immunomodulator, antidiabetic, and as a consistence given in the any of the 303 fully defined nucleotide sequences given in the specification. The polypeptide is useful in the manufacture of a medicament for treating a syndrome associated with a human disease. The polypeptide, polypuciotide and antibody are useful in diagnosing, treating or preventing NOVX-associated disorders, e.g. cancer, cachexia, alzahamer's disease, Parkinson's disease, obesity, diabetes, infectious diseases, metabolic syndrome X or dyslipidaemias. The nucleic acids are typing, preventive medicine, and pharmacogenomics. The present sequence typing, preventive medicine, and pharmacogenomics. The present sequence

## Sequence 776 AA;

ö Gaps ; 0 94.7%; Score 36; DB 8; Length 776; 83.3%; Pred. No. 1.1e+03; ive 1; Mismatches 0; Indels Local Similarity 83.3 es 5; Conservative Query Match Matches

g

```
NOV; Cytostatic; contraceptive; antiinflammatory; immunomodulatory; cardiovascular; casein kinase II phosphorylation site; contraception; estine/threonine kinase; Peutz-Jephers syndrome; cellular proliferation; epidermal growth factor; cell development; apoptosis; cell adhesion; growth migration; cell structure; motility; cancer; immune disorder; inflammatory disorder; cellular adhesion disorder; long-QT syndrome; cardiovascular disease; hypertrophic cardiomyopathy; marfan syndrome; therapy; NOV1; NOV2; NOV4; NOV5; NOV6; NOV7; NOV8; NOV9; NOV10;
              AAB83372 standard; protein; 882 AA
                                             (first entry)
                                                             NOV16 protein sequence.
                                             26-MAR-2002
                               AAB83372;
RESULT 7
       AAB8337
```

Unidentified

WO200136638-A2.

25-MAY-2001.

17-NOV-2000; 2000WO-US031543.

19-NOV-1999; 99US-0166336P. 29-NOV-1999; 99US-016785P. 08-MXR-2000; 2000US-0187844P. 16-NOV-2000; 2000US-00715417.

CURA-) CURAGEN CORP

Shimkets RA, Lichenstein H, Vernet C, Fernandes E;

WPI; 2001-648134/74. N-PSDB; AAF87127.

Novel human polypeptides and the nucleic acids that encode them useful for preventing, diagnosing and treating e.g. cancer, inflammation and immune disorders.

## Claim 1; Page 50-52; 141pp; English.

This sequence is the Nov16 protein. The invention relates to the Nov1
Nov16 proteins, and their coding sequences. The proteins have Cytostatic;

Contraceptive; antiinflammatory; immunomodulacory; and cardiovascular

activities. The sequences may be used in the prevention, diagnosis and

treatment of diseases associated with inappropriate NovX expression. They

crecifying mutations or deletions in a patient's genome that affect the

activity of protein by expressing inactive proteins or to supplement the

crecifying mutations or deletions in a patient's genome that affect the

activity of protein by expressing inactive proteins or to supplement the

patients own production of protein. They are used to produce NoVX

proteins, by inserting the nucleic acid into a cell and culturing it to

express the protein. The DNA may be used as DNA probes in assays to content and quantitate the presence of similar DNAs in samples, and which

ce express the quantitate the presence of similar DNAs in samples, and which

patients may need restorative therapy. The NOVX protein may also be used

as antigens in the production of antibodies (Abs) against NoVX and in

cassays to identify modulators of NOVX expression and activity. The anti-NOVX Abs are used for detecting the presence of NOVX

activity. The anti-NOVX bas are used for detecting the presence of NOVX

in samples. Disorders that may be prevented, diagnosed and/or treated

contraception.

Co

```
The invention relates to a novel isolated polypeptide (NOVX). A polypeptide of the invention has cytostatic, immunomodulator, neuroprotective, nootropic, anorectic, antidiabetic, antimicrobial, and antilipaemic activity, and may have a use in gene therapy, and as vaccine. The polypeptides are encoded by NOVX polynucleotides comprising any of the 303 fully defined nucleotide sequences given in the specification. The polypeptide is useful in the manufacture of a medicament for treating a syndrome associated with a human disease. The polypeptide, polynucleotide and antibody are useful in diagnosing,
                                                                                                                                                                                                                                                                               30-SEP-2002;
                                                                                                                 12-AUG-2002;
                                                                                                                                            12-AUG-2002;
                                                                                                                                                                                                                                                             20-SEP-2002;
                                                                                                                                                                                                                                                                       23-SEP-2002;
                                                                                                                                                                                                                                                                                                                             09-OCT-2002;
                                                                                                                                                                                                                                                                                                                                               28-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                          31-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                             12-NOV-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhong H;
   ó,
NOV6-10 are homologous to EGF-like fibrillin proteins and are used to treat cardiovascular disease e.g. hypertrophic cardiomyopathy, long-QT syndrome and marfan syndrome
                                                                             Gaps
                                                                                                                                                                                                                                        human; cytostatic; immunomodulator; neuroprotective; nootropic; anorectic; antidiabetic; antimicrobial; antilipaemic; gene therapy; vaccine; cancer; cachexia; Alzheimer's disease; Parkinson's disease; obesity; diabetes; infectious disease; metabolic syndrome X;
                                                                             ö
                                                          Length 882;
                                                 Score 36; DB 4; Lengtn 002
Pred. No. 1.2e+03;
                                                                                                                                                                                                                      Human protein of the invention NOV40 SEQ ID NO:60.
                                                         Match 94.7%; Score 36; DB Local Similarity 83.3%; Pred. No. 1.2e es 5; Conservative 1; Mismatches
                                                                                                                                                               ADH71164 standard; protein; 882 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002US-0386816F
2002US-0386931P
2002US-038691P
2002US-0386971P
2002US-0386971P
2002US-038762P
2002US-0387640P
2002US-0387640P
2002US-0387640P
2002US-0387640P
                                                                                                                                                                                                                                                                                                                                                                                           2002US-0386041P.
2002US-0386347P
2002US-0386457P.
2002US-0386453P.
2002US-038684P.
2002US-0386796P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0388022P.
2002US-0388096P.
2002US-0389123P.
2002US-0389118P.
                                                                                                                                                                                                                                                                                                                                                         03-JUN-2003; 2003WO-US017430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002US-0387696P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0387702P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002US-0387836P.
2002US-0387859P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002US-0387933P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002US-0387934P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-JUN-2002; 2002US-0389120P.
                                                                                                                                                                                                    (first entry)
                                                                                                         264 CVPITC 269
                                                                                              CVPLTC 6
                                       Sequence 882 AA;
                                                                                                                                                                                                                                                                                                                   WO2003102155-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-JUN-2002;
11-JUN-2002;
11-JUN-2002;
11-JUN-2002;
11-JUN-2002;
11-JUN-2002;
11-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-JUN-2002;
12-JUN-2002;
12-JUN-2002;
12-JUN-2002;
                                                                                                                                                                                                                                                                               dyslipidaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUN-2002;
08-JUN-2002;
10-JUN-2002;
10-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                       06-JUN-2002;
                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-2002;
                                                                                                                                                                                                    25-MAR-2004
                                                                                                                                                                                                                                                                                                                                      11-DEC-2003
                                                                                                                                                                                 ADH71164;
                                                          Query Match
                                                                            Matches
                                                                                                                                                    RESULT
  888333
                                                                                               ઠે
                                                                                                             g
```

```
Alsobrook JP, Alvarez E, Anderson DW, Boldog FL, Casman SJ;
Ettenberg E, Chapoval A, Crabtree-Bokor JR, Edinger SR, Ellerman K;
Ettenberg S, Gangolli EA, Gerlach VL, Gorman L, Gunther E, Guo X;
Gusev VY, Hermann JL, Ji W, Kekuda R, Li L, Liu X, Macdougall JR;
Maclachlan T, Malyankar UM, Mezick AJ, Millet I, Mishra VS;
Badigaru M, Penturajan M, Pena CEA, Peyman JA, Raha D, Rastelli L;
Rieger DK, Rochenberg ME, Sciore P, Shenoy SG, Shinkets RA;
Smithson G, Spytek KA, Stone DJ, Vernet CAM, Voss EZ, Zhong M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New NOVX polypeptides and nucleic acid molecules useful for preventing c
treating NOVX-associated disorders, e.g. cancer, diabetes, infection or
obesity, and in chromosome mapping, tissue typing or pharmacogenomics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 4; SEQ ID NO 60; 1880pp; English.
                                                                                                                                                                                                                                                                     2002US-0403448P.
2002US-0403459P.
2002US-0403531P.
2002US-0403532P.
2002US-0403532P.
                    2002US-0390209P.
2002US-0390763P.
2002US-0396706P.
2002US-0401628P.
                                                                                                             2002US-0402156P.
2002US-0402256P.
2002US-0402389P.
                                                                                                                                                                              2002US-0402786P.
2002US-0402816P.
2002US-0402821P.
2002US-0402832P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0412528P.
2002US-0412731P.
2002US-0414801P.
2002US-0414839P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002US-0414840P.
2002US-0414954P.
2002US-0417186P.
                                                                                                                                                                                                                                                                                                                                                                                                                                 2002US-0406182P.
2002US-0406355P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002US-0417406P.
2002US-0420639P.
                                                                                                                                                                                                                                                                                                                                                                                     2002US-0406317P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0410084P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002US-0423130P.
2002US-00423798.
                                                                                                                                                                                                                                                                                                                                                                                                              2002US-0403617P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002US-0406240P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-0421156P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0422690P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002US-0423798P
2002US-0425453P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-081935/08.
N-PSDB; ADH71163.
19-JUN-2002;
19-JUN-2002;
21-JUN-2002;
17-JUL-2002;
06-AUG-2002;
                                                                                                             09-AUG-2002;
09-AUG-2002;
09-AUG-2002;
                                                                                                                                                                                                                                                                                                                                      13-AUG-2002;
13-AUG-2002;
13-AUG-2002;
15-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                               26-AUG-2002;
26-AUG-2002;
27-AUG-2002;
12-SEP-2002;
                                                                                                                                                                                                                                                                       13-AUG-2002;
13-AUG-2002;
13-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-SEP-2002;
30-SEP-2002;
09-OCT-2002;
```

cachexia

ö

Gaps

. 0

```
This sequence is the NOV15 protein. The invention relates to the NOV1-NOV16 proteins, and their coding sequences. The proteins have Cytostatic; contraceptive; antiinflammatory; immunomodulatory; and cardiovascular activities. The sequences may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate NOVX expression. They may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of protein by expressing inactive proteins or to supplement the patients own production of protein. They are used to produce NOVX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOV, Cytostatic; contraceptive; antiinflammatory; immunomodulatory; cardiovascular; casein kinase II phosphorylation site; contraception; serine/threonine kinase; Peutz-Jeghers syndrome; cellular proliferation; epidermal growth factor; cell development; apoptosis; cell adhesion; growth migration; cell structure; motility; cancer; immune disorder; inflammatory disorder; cellular adhesion disorder; long-OT syndrome; cardiovascular disease; hypertrophic cardiomyopathy; marfan syndrome; therapy; NOV1; NOV2; NOV4; NOV5; NOV6; NOV7; NOV9; NOV10; NOV11; NOV12; NOV14; NOV15; NOV15; NOV15; NOV16;
                    Alzheimer's disease, Farkinson's disease, obesity, diabetes, infectious diseases, metabolic syndrome X or dyslipidaemias. The nucleic acids are further used as hybridisation probes, in chromosome mapping, tissue typing, preventive medicine, and pharmacogenomics. The present sequence represents a NOVX polypeptide of the invention.
treating or preventing NOVX-associated disorders, e.g. cancer, cachexia
Alzheimer's disease, Parkinson's disease, obesity, diabetes, infectious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human polypeptides and the nucleic acids that encode them useful for preventing, diagnosing and treating e.g. cancer, inflammation and immune disorders.
                                                                                                                                                                               Length 882;
                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shimkets RA, Lichenstein H, Vernet C, Fernandes E;
                                                                                                                                                                               Score 36; DB 8; I
Pred. No. 1.2e+03;
L; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 46-48; 141pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                   AAB83371 standard; protein; 883 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-NOV-1999; 99US-0166336P.
29-NOV-1999; 99US-0167785P.
08-MAR-2000; 2000US-0187844P.
16-NOV-2000; 2000US-00715417.
                                                                                                                                                                                 94.7%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-NOV-2000; 2000WO-US031543.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAR-2002 (first entry)
                                                                                                                                                                                                                        5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NOV15 protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-648134/74.
                                                                                                                                                                                                                                                                                 264 CVPITC 269
                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                             1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAF87126
                                                                                                                                          Sequence 882 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200136638-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB83371;
                                                                                                                                                                                                       Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                8×6666668
                                                                                                                                                                                                                                                                                                  g
```

```
proteins, by inserting the nucleic acid into a cell and culturing it to express the protein. The DNA may be used as DNA probes in assays to detect and quantitate the presence of similar DNAs in samples, and which patients may need restorative therapy. The NOVX protein may also be used as antigens in the production of antibodies (Abs) against NOVX and in assays to identify modulators of NOVX expression and activity. The anti-NOVX Abs are used for detecting the presence of NOVX antivity. The anti-NOVX Abs are used for detecting the presence of NOVX in samples. Disorders that may be prevented, diagnosed and/or treat to avy depending on the NOVX protein. NOV1, NOV3, NOV7, NOV9-11 and NOV13-16 have casein kinase II phosphorylation sites characteristic of serine/threonine kinases, and are used to treat kinases-related disporaters of cell serine/threonine kinases, and are used to treat kinase-related disporaters of the super family and are involved in, e.g. regulation of cell structure and motility and protein management, and are used to treat cancers, inflammatory disorders, immune disorders and cellular adhesion disorders inflammatory disorders, immune disorders and cellular adhesion disorders.

NOVE-10 are homologous to EGF-1ike fibrillin proteins and are used to treat cancers.

Syndrome and marfan syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human; cytostatic; immunomodulator; neuroprotective; nootropic; anorectic; antidiabetic; antimicrobial; antilipaemic; gene therapy; vaccine; cancer; cachexia; Alzheimer's disease; Parkinson's disease; obseity; diabetes; infectious disease; metabolic syndrome X; dyslipidaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                              94.7%; Score 36; DB.4; Length 883; 83.3%; Pred. No. 1.2e+03; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human protein of the invention NOV4n SEQ ID NO:58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADH71162 standard; protein; 884 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , 2002US-0385120P.
2002US-0385484P.
2002US-0386041P.
2002US-0386047P.
2002US-0386346P.
2002US-0386348P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-0387262P.
2002US-0296960P.
2002US-0387400P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002US-0387016P.
2002US-0386796P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-JUN-2003; 2003WO-US017430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0386816P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002US-0386931P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002US-0386942P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002US-0386971P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     264 CVPITC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 883 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-DEC-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADH71162;
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADH71162
         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
```

10-JUN-2002;

ö

```
The invention relates to a novel isolated polypeptide (NOVX). A polypeptide of the invention has cytostatic, immunomodulator, neuroprotective, mostropic, antidiabetic, antidiabetic and antidiabetic antibiabetic comprising antidiabetic associated by NOVX polynucleotides comprising the polypeptide is useful in the manufacture of a medicament for treating a syndrome associated with a human disease. The polypeptide is useful in diagnosing, treating or preventing NOVX-associated disorders. e.g. cancer, cachexia, alzheimer's disease, Parkinson's disease, obesity, diabetes, infectious diseases, metabolic syndrome X or dyslipidaemias. The nucleic acids are typing, preventive medicine, and pharmacogenomics. The present sequence typing, preventive medicine, and pharmacogenomics. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; C3b/C4b complement receptor-like molecule; immune system disorder; gene therapy; rheumatoid arthritis; psoriatic arthritis; osteoarthritis; inflammatory arthritis; inflammatory joint disease; Alzheimer's disease; multiple sclerosis; inflammatory bowel disease; nervous system disorder; transplant rejection; autoimmune disease; ischaemic condition; nootropic; metabolic disorder; immunomodulatory; neuroprotective; diabetes; lupus; infertility; vasodilator; obesity; cardiant.
                                                                                 polypeptides and nucleic acid molecules useful for preventing NOVX-associated disorders, e.g. cancer, diabetes, infection or and in chromosome mapping, tissue typing or pharmacogenomics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94.7%; Score 36; DB 8; Length 884; 83.3%; Pred. No. 1.2e+03; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human C3b/C4b complement receptor like protein #1.
                                                                                                                                                                                              Example 4; SEQ ID NO 58; 1880pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAE20787 standard; protein; 3069 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-JUL-2001; 2001WO-US023232.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-AUG-2000; 2000US-0222504P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |||:||
264 CVPITC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Misc-difference 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTC 6
WPI; 2004-081935
N-PSDB; ADH71161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 884 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200210199-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-FEB-2002.
                                                                                                               treating lobesity,
                                                                                   New NOVX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE20787;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE20787
     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alsobrook JP, Alvarez E, Anderson DW, Boldog FL, Casman SJ;
Catterton B, Chapoval A, Crabtree-Bokor JR, Edinger SR, Ellerman K;
Ettenberg S, Gangolli EA, Gerlach VL, Gorman L, Gunther E, Guo X;
Gusev VY, Herrmann JL, Ji W, Kekuda R, Li L, Liu X, Macdougall JR;
Maclachlan T, Malyankar UW, Mezick AJ, Millet I, Mishra VS;
Padigaru M, Penturajan M, Pena CEA, Peyman JA, Raha D, Rastelli L;
Rieger DK, Rothenberg ME, Sciore P, Shenoy SG, Shimkets RA;
Smithson G, Spytek KA, Stone DJ, Vernet CAM, Voss EZ, Zhong M;
                   11. JUN-2002) 2002US-0387610P.
11. JUN-2002) 2002US-038762SP.
11. JUN-2002) 2002US-038762SP.
11. JUN-2002) 2002US-038766BP.
11. JUN-2002) 2002US-038763PP.
11. JUN-2002) 2002US-038786BP.
12. JUN-2002) 2002US-038785SP.
12. JUN-2002) 2002US-038785SP.
12. JUN-2002) 2002US-038785SP.
12. JUN-2002) 2002US-0387986BP.
12. JUN-2002) 2002US-038796BP.
12. JUN-2002) 2002US-038796BP.
12. JUN-2002) 2002US-0389123P.
13. JUN-2002) 2002US-0389124P.
14. JUN-2002) 2002US-0389124P.
14. JUN-2002) 2002US-0389124P.
14. JUN-2002) 2002US-0389144P.
15. JUN-2002) 2002US-0389144P.
17. JUN-2002) 2002US-0389144P.
18. JUN-2002) 2002US-0389144P.
19. JUN-2002) 2002US-0389144P.
19. JUN-2002) 2002US-0389144P.
19. JUN-2002) 2002US-0399144P.
11. JUN-2002) 2002US-0389144P.
12. JUN-2002) 2002US-0389144P.
13. JUN-2002) 2002US-0389144P.
13. JUN-2002) 2002US-0389144P.
13. JUN-2002) 2002US-0399144P.
13. JUN-2002) 2002US-04003891P.
13. JUN-2002) 2002US-0410881P.
13. JUN-2002) 2002US-0410881P.
13. JUN-2002) 2002US-0410881P.
13. JUN-2002) 2002US-0410881P.
13. JUN-2002) 2002US-0410891P.
13. JUN-2002 2002U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-OCT-2002; 2002US-0422690P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CURA-) CURAGEN CORP.
```

th gnodz

ö

Gaps

; 0

us-09-761-636a-12.open.rag

```
sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE20788;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE20788
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13x8x4x4x4xx6x1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                         disorders such as rheumatoid arthritis, psoriatic arthritis, inflammatory arthritis, osteoarthritis, inflammatory joint disease, autoimmune disease, multiple sclerosis, lupus, inflammatory bont disease, autoimmune transplant rejection, nervous system disorders (e.g. Alzheimer's disease), ischaemic conditions, metabolic disorders (e.g. obesity and diabetes) and infertility. The invention is useful in gene therapy. The present sequence is human (3b/C4b complement receptor like protein. Note: The present sequence is stated to be the same as that referred to as SEQ ID No:2 (AARE20900) shown in page 176-189 of the specification. However the sequences differ at position 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; C3b/C4b complement receptor-like molecule; immune system disorder; gene therapy; rheumatoid arthritis; psoriatic arthritis; osteoarthritis; inflammatory sint disease; Alzheimer's disease; multiple sclerosis; inflammatory bowel disease; nervous system disorder; transplant rejection; autoimmune disease; ischaemic condition; nootropic; metabolic disorder; immunomodulatory; neuroprotective; diabetes; lupus; infertility; vasodilator; obesity; cardiant.
                                                                                                         Nucleic acid encoding a novel C3b/C4b Complement Receptor-like nucleic acid molecule, useful for treating, preventing and diagnosing rheumatoid arthritis, psioriatic arthritis, inflammatory arthritis, and multiple
                                                                                                                                                                                           The invention relates to a nucleic acid encoding a novel C3b/C4b complement receptor (CR)-like nucleic acid molecule. The C3b/C4b CR-like polypeptide and nucleic acid molecules may be used to treat, prevent, ameliorate, diagnose and/or detect diseases such as immune system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human C3b/C4b complement receptor like protein #1, alternative version.
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                     Length 3069;
                                                                                                                                                                                                                                                                                                                                                                                                     Score 36; DB 5; Length 306
Pred. No. 3.6e+03;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "Encoded by CTR" Misc-difference 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE20900 standard; protein; 3069 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                      Claim 13; Fig 1; 251pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'label= Unknown
                                                                                                                                                                                                                                                                                                                                                                                                    94.7%;
28-NOV-2000; 2000US-00728787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 83.3
Matches 5; Conservative
                                              gs;
                                              Welcher AA, Elliott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2238 CVPITC 2243
                                                                       2002-303934/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
Misc-difference 387
                      (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                               Sequence 3069 AA;
                                                                                  N-PSDB; AAD33318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUL-2002
                                                                                                                                               sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE20900;
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE20900
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
```

```
The invention relates to a nucleic acid encoding a novel C3b/C4b complement receptor (CR)-like nucleic acid molecule. The C3b/C4b CR-like polypeptide and nucleic acid molecules may be used to treat, prevent, ameliorate, diagnose and/or detect diseases such as immune system disorders such as rheumatoid arthritis, postcarthritis, inflammatory joint disease, autoimmune arthritis, ostcarthritis, inflammatory joint disease, autoimmune disease, multiple sclerosis, lupus, inflammatory bowel disease, transplant rejection, nervous system disorders (e.g. Alzheimer's disease), ischaemic conditions, metabolic disorders (e.g. obesity and disease), ischaemic conditions, metabolic disorders (e.g. obesity and diabetes) and infertility. The invention is useful in gene therapy. The present sequence is human C3b/C4b complement receptor like protein, alternative version. Note: The present sequence is stated to be the same as that referred to as SEQ ID NO:2 (ABE20787) shown in figure 1 of the specification. However the sequences differ at position 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rat; C3b/C4b complement receptor-like molecule; immune system disorder; gene therapy; rheumatoid arthritis; psoriatic arthritis; osteoarthritis; inflammatory sthritis; inflammatory joint disease; Alzheimer's disease; multiple sclerosis; inflammatory bowel disease; nervous system disorder; transplant rejection; autoimmune disease; ischaemic condition; nootropic; metabolic disorder; immunomodulatory; neuroprotective; diabetes; lupus; infertility; vasodilator; obesity; cardiant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic acid encoding a novel C3b/C4b Complement Receptor-like nucleic acid molecule, useful for treating, preventing and diagnosing rheumatoid arthritis, psioriatic arthritis, inflammatory arthritis, and multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 3069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.7%; Score 36; DB 5; I
83.3%; Pred. No. 3.6e+03;
iive 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rat C3b/C4b complement receptor like protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 13; Page 176-189; 251pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE20788 standard; protein; 3095 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers Misc-difference 196
/label= Unknown
                                                                                                                                                                                                                                    24-JUL-2001; 2001WO-US023232.
                                                                                                                                                                                                                                                                                                                       02-AUG-2000; 2000US-0222504P.
28-NOV-2000; 2000US-00728787.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Welcher AA, Elliott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2238 CVPITC 2243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-303934/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTC 6
                                                                                                                                                                                                                                                                                                                                                                                                                                           (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3069 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAD33318.
                                                                              WO200210199-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-2002
                                                                                                                                                             07-FEB-2002,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5;
```

Misc-difference

```
Nucleic acid encoding a novel C3b/C4b Complement Receptor-like nucleic acid molecule, useful for treating, preventing and diagnosing rheumatoid arthritis, psioriatic arthritis, inflammatory arthritis, and multiple
                          /label= Unknown
/note= "Xaa can be any amino acid"
          amino acid'
         note= "Xaa can be any
                                                                                                                                                                                                                                                        Claim 13; Fig 3; 251pp; English
/label= Unknown
                                                                                            24-JUL-2001; 2001WO-US023232.
                                                                                                             02-AUG-2000; 2000US-0222504P.
28-NOV-2000; 2000US-00728787.
                                                                                                                                                            Welcher AA, Elliott GS;
                                                                                                                                                                               WPI; 2002-303934/34.
                   Misc-difference 847
                                                                                                                                          (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3095 AA;
                                                                                                                                                                                        N-PSDB; AAD33319
                                                       WO200210199-A2
                                                                        07-FEB-2002
                                                                                                                                                                                                                                        sclerosis
```

The invention relates to a nucleic acid encoding a novel C3b/C4b complement receptor (CR)-like nucleic acid molecule. The C3b/C4b CR-like polypeptide and nucleic acid molecules may be used to treat, prevent, ameliorate, diagnose and/or detect diseases such as immune system disorders such as rheumatoid arthritis, psoriatic arthritis, inflammatory joint disease, autoimmune arthritis, osteoarthritis, inflammatory joint disease, autoimmune transplant rejection, nervous system disorders (e.g. Alzheimer's disease), ischaemic conditions, metabolic disorders (e.g. Alzheimer's disease), ischaemic conditions, metabolic disorders (e.g. Obesity and diabetes) and infertility. The invention is useful in gene therapy. The present sequence is rat C3b/C4b complement receptor like protein Length 3095; Score 36; DB 5; Lengtn 303. Pred. No. 3.7e+03; 94.7%;

```
Local Similarity 83.3 les 5; Conservative
                                                2264 CVPITC 2269
                             1 CVPLTC 6
                                              g
                              8
```

Query Match

**Jatches** 

ö

Gaps ; 0

> AAE20789 standard; protein; 3100 AA. (first entry) 01-JUL-2002 AAE20789; RESULT 14

Human C3b/C4b complement receptor like protein #2.

Human; C3b/C4b complement receptor-like molecule; immune system disorder; gene therapy; rheumatoid arthritis; psoriatic arthritis, osteoarthritis; inflammatory joint disease; Alzheimer's disease; multiple sclerosis; inflammatory bowel disease; nervous system disorder; transplant rejection; autoimmune disease; ischaemic condition; nootropic; metabolic disorder; immunomodulatory; metroprotective; diabetes; lupus; infertility; vasodilator; obesity; cardiant.

Homo sapiens

Key

Location/Qualifiers

```
The invention relates to a nucleic acid encoding a novel C3b/C4b complement receptor (CR)-like nucleic acid molecule. The C3b/C4b CR-like polypeptide and nucleic acid molecules may be used to treat, prevent, ameliorate, diagnose and/or detect diseases such as immune system disorders such as rheumatoid arthritis, posteoarthritis, inflammatory joint disease, autoimmune atraptable sclerosis, inflammatory joint disease, autoimmune transplant rejection, nervous system disorders (e.g. Alzheimer's disease), ischaemic conditions, metabolic disorders (e.g. obesity and diabetes) and infertility. The invention is useful in gene therapy. The present sequence is human C3b/C4b complement receptor like protein. Note: The present encourage stated to be the same as that referred to as SEQ ID NO:? (AARZO901) shown in page 239-251 of the specification. However
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, C3b/C4b complement receptor-like molecule; immune system disorder; gene therapy; rheumatoid arthritis; psoriatic arthritis; osteoarthritis; inflammatory joint disease; Alzheimer's disease; multiple sclerosis; inflammatory bowel disease; nervous system disorder; transplant rejection; autoimmune disease; ischaemic condition; nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleic acid encoding a novel C3b/C4b Complement Receptor-like nucleic acid molecule, useful for treating, preventing and diagnosing rheumatoid arthritis, psioriatic arthritis, inflammatory arthritis, and multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human C3b/C4b complement receptor like protein #2, alternative version.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94.7%; Score 36; DB 5; Length 3100; 83.3%; Pred. No. 3.7e+03; ive 1; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE20901 standard; protein; 3100 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 13; Fig 2; 251pp; English.
               label= Unknown
                                               'label= Unknown
                                                                                                                   /label= Unknown
                                                                                 'label= Unknown
                                                                                                                                                                                                                      24-JUL-2001; 2001WO-US023232.
                                                                                                                                                                                                                                                      02-AUG-2000; 2000US-0222504P.
28-NOV-2000; 2000US-00728787.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                           Welcher AA, Elliott GS;
                                                                                                                                                                                                                                                                                                                                                                           2002-303934/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |||:||
2269 CVPITC 2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                          (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3100 AA;
                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAD33320
                               Misc-difference
                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTC
                                                               Misc-difference
                                                                                                                                                     WO200210199-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUL-2002
                                                                                                                                                                                    07-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                رى
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE20901;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAE20901
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
Nucleic acid encoding a novel C3b/C4b Complement Receptor-like nucleic acid molecule, useful for treating, preventing and diagnosing rheumatoid arthritis, psioriatic arthritis, inflammatory arthritis, and multiple
metabolic disorder; immunomodulatory; neuroprotective; diabetes; lupus;
infertility; vasodilator; obesity; cardiant.
                                                                                                         726
/label= Unknown
/note= "Encoded by CTR"
                                                                                                                                                                                                                                                                                                                                     Claim 13; Page 239-251; 251pp; English
                                            Location/Qualifiers
                                                             /label= Unknown
                                                                               'label= Unknown
                                                                                                 label= Unknown
                                                                                                                                                                                                02-AUG-2000; 2000US-0222504P.
28-NOV-2000; 2000US-00728787.
                                                                                                                                                                               24-JUL-2001; 2001WO-US023232.
                                                                                                                                                                                                                                            Welcher AA, Elliott GS;
                                                                                                                                                                                                                                                              WPI; 2002-303934/34.
N-PSDB; AAD33320.
                                                                                                                                                                                                                           (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3100 AA;
                                                                      Misc-difference
                                             Key
Misc-difference
                                                                                        Misc-difference
                                                                                                          Misc-difference
                                                                                                                                            WO200210199-A2
                           Homo sapiens
                                                                                                                                                             07-FEB-2002.
                                                                                                                                                                                                                                                                                                                    sclerosis
```

The invention relates to a nucleic acid encoding a novel C3b/C4b complement receptor (CR)-like nucleic acid molecule. The C3b/C4b CR-like polypeptide and nucleic acid molecules may be used to treat, prevent, ameliorate, diagnose and/or detect diseases such as immune system disorders such as rheumatoid arthritis, prevent, arthritis, osteoarthritis, inflammatory joint disease, autoimmune transplant rejection, nervous system disorders (e.g. Alzheimer's disease, multiple sclerosis, lupus, inflammatory bowel disease, transplant rejection, nervous system disorders (e.g. Alzheimer's disease), ischaemic conditions, metabolic disorders (e.g. Alzheimer's present sequence is human C3b/C4b complement receptor like protein, alternative version. Note: The present sequence is stated to be the same as that referred to as SEQ ID NO:7 (AARE20789) shown in figure 2 of the specification. However the sequences differ at position 726

Gapa .; 0 94.7%; Score 36; DB 5; Length 3100; 83.3%; Pred. No. 3.7e+03; live 1; Mismatches 0; Indels 5; Conservative Local Similarity Query Match Best Loca Matches

ઠે g Search completed: April 1, 2005, 09:18:22 Job time : 47.2877 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 06:17:29 ; Search time 10.1644 Seconds (without alignments) 66.262 Million cell updates/sec Run on:

US-09-761-636A-11 42

1 CVPLTSC 7 Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 79:*
1: pir1:*
3: pir2:*
1: pir4:* 4 2 2 4 Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		d			SUMMARIES	
Result No.	Score	Query Match	Length	BB	ID	Description
1	39	92.9	2543	7	T31687	suface antiqen - P
7	38	90.5		~	D44490	retrovirus-related
3	36	85.7	980	~	T00045	cellodextrin phosp
4	36	85.7	2533	~	T28675	alpha-51D immobili
2	36	85.7		~	T28674	alpha-51D-immobili
9	34	ij.		~	T30886	integumentary muci
7	34	81.0		~	A54895	mucin 2, intestina
œ	34	Ξ.		~	T34022	zonadhesin - pig
σ	33	œ,		~	866336	protein kinase AK2
10	33	78.6		N	146412	keratin KAP5.4 - 8
11	33	78.6		ď	A64655	hypothetical prote
12	33	₿.		~	B71943	
13	33	78.6	223	N	B38346	ultra-high-sulfur
14	33	æ.		~	A38346	ultra-high-sulfur
15	33	₿.		П	WZBEM6	gene 20 protein -
16	33	θ.		7	C33374	hypothetical prote
17	33	В.		7	T23089	
18	33	78.6		~	T23814	1
19	33	æ		~	F88297	Π.
20	33	œ.		~	H86306	rot
21	33	78.6	1227	7	T49963	hetio
22	33	œ.		~	A43932	mucin 2 precursor,
23	33	æ.		~	S52093	hemocytin - silkwo
24	32	76.2		7	JC4790	proteinase inhibit
25	32	ė.		7	$^{\circ}$	hypothetical prote
56	32	9		~	293	
27	32	é.	305	~	378	peroxisome assembl
28	32	ė.		7	F84712	ical prot
59	32	•		~	A49179	melanoma antigen h

melanoma-associate melanocyte-specifi	tegument protein 0 still life protein	hypothetical prote surface protein ty	zonadhesin - mouse	chymotrypsin/elast	hypothetical prote	vascular endotheli	vascular endotheli	ovine vascular end	hypothetical prote	ultra high-sulfur	ultra-high-sulfur	glioma-derived vas
I38400 A41234	S55598 T13704	T29764 S50820	T42215	S08572	S16496	A33787	151295	857956	T27849	S18946	A36686	A35987
00	0 0	7 7	~	0	~	~	~	N	~	Н	0	7
662	1319	2395	5376	63	110	120	128	146	161	169	182	190
76.2	76.2	76.2	76.2	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
332	32	3 3	32	31	33	31	31	31	31	31	31	31
30 31	32 33	34 35	36	37	38	33	40	41	42	43	44	45

## ALIGNMENTS

	RESULT 1
	T31687
	suface antigen - Paramecium primaurelia
	C;Species: Paramecium primaurelia
	C;Date: 19-May-2000 #sequence_revision 19-May-2000 #text_change 09-Jul-2004
	C;Accession: T31687
	R;Bourgain-Guglielmetti, F.; Caron, F.
	Journal of Eukaryot. Microbiol. 43, 303-314, 1996
	A, Title: Molecular characterization of the D surface protein gene subfamily in Paramecium
	A; Reference number: Z21061; MUID: 96313351; PMID: 8768434
	A;Accession: T31687
	A;Status: preliminary
_	A; Molecule type: DNA
	A;Residues: 1-2543 <bou></bou>
	A; Cross-references: UNIPROT: P90649; EMBL: X96616; NID: 91235576; PIDN: CAA65436.1
	C;Genetics:
-	A;Genetic code: SGC5
	C;Superfamily: G surface protein
	Query Match 92.9%; Score 39; DB 2; Length 2543;
	Best Local Similarity 1/4%; Pred. No. 27; Matches c. Conservative 2. Mismatches n. Indale n. Gane n.
	כן החומבו אמרואה לן הוסווומרחופט הן דוומפוט הן פעצים
	Qy 1 CVPLTSC 7 .
	Db 2158 CIPITSC 2164
	RESULT 2

Letrovirus-related reverse transcriptase homolog (clone NvC) - pteromalid wasp (Nasonia vetrovirus-related reverse transcriptase homolog (clone NvC) - pteromalid wasp (Nasonia vitripennia C.Species: Nasonia vitripennia C.Species: Nasonia vitripennia C.Species: 22-Sep-1933 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004 (C.Accession: D44490; F40442 (C.Accession: D44490; F40442 (C.Accession: D44490; MulD: 93196444; PMID: 8383793 (C.Accession: D44490) (MulD: 93196444; PMID: 8383793 (C.Accession: D44490) (MulD: 93196444; PMID: 8383793 (C.Accession: D44490) (MulD: 93196444; PMID: 8383793 (C.Accession: D4490) (C.Accession: D4490) (C.Accession: D4490) (C.Accession: D4490) (A.Status: D261minary; not compared with conceptual translation A.Scatus: J.380 (C.Accession: P40442) (MulD: 91195337; PMID: 1889649 A.Accession: F40442 (C.Accession: P40442) (MulD: 91195337; PMID: 1889649 A.Accession: F40442 (C.Accession: P40442) (C.Accession:

2

ö

Š ద

```
Cjacession: T28674
R/sCommatt, H.J.

BySchmidt, H.J.

A)Reference number: 220505
A)Reference number: 220503
A)Reference number: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 1-1513 <OHM>
A;Cross-references: UNIPROT:Q62635; GB:U07615
C;Superfamily: von Willebrand factor; von Willebrand factor type A repeat homology; von V
C;Keywords: intestine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Biol. Chem. 272, 1805-1810, 1997
A,Title: Similarities of integumentary mucin B.1 (FIM-B.1) from Xenopus laevis and preprocession: T30886
A,Accession: T30886
A,Status: preliminary; translated from GB/EMBL/DDBJ
A,Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Riohmori, H.; Dohrman, A.F.; Gallup, M.; Tsuda, T.; Kai, H.; Gum Jr., J.R.; Kim, Y.S.; Bat. Bail. Chem. 269, 17833-17846, 1994
A.Fitle: Molecular cloning of the amino-terminal region of a rat MUC 2 mucin gene homolog A.Reference number: A54895; MUID:94299489; PMID:8027037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A.Residues: 1-1506 <JOB>
A.Cross-references: UNIPROT:P79927; EMBL:Y08296; NID:g1839051; PIDN:CAA69604.1; PID:g1835
C.Genetics:
   C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          integumentary mucin B.1 - African clawed frog (fragment)
C;Species: Xenopus laevis (African clawed frog)
C;Species: Cc.1999 #sequence_revision 22-Oct-1999 #text_change 09-Jul-2004
C;Accession: T30886
R;Joba_W; Hoffmann, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mucin 2, intestinal/tracheal - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 23-Mar-1995 #sequence_revision 23-Mar-1995 #text_change 09-Jul-2004
C;Accession: A54895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 81.0%; Score 34; DB 2; Length 1513; Best Local Similarity 71.4%; Pred. No. 1.5e+02; Matches 5; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2; Length 2533; 98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81.0%; Score 34; DB 2; I
ilarity 71.4%; Pred. No. 1.5e+02;
Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 36; DB 2
Pred. No. 98;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Note: FIM-B.1
C, Superfamily: pig submaxillary mucin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85.7%;
Best Local Similarity 57.1%;
Matches 4; Conservative :
                                                                                                                                                                                                                                                                                                                                                                         A;Genetic code: SGC5
A;Note: alpha-51D
C;Superfamily: G surface protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1:|:|
2149 CIPITNC 2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1292 CVPLSKC 1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: A54895
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Clostifidium thermocellum
C;Date: 22-Jan-1999 #sequence_revision 22-Jan-1999 #text_change 09-Jul-2004
C;Date: 22-Jan-1999 #sequence_revision 22-Jan-1999 #text_change 09-Jul-2004
C;Cacession: T00045
R;Kawaguchi, T.; Ikeuchi, Y.; Tsutsumi, N.; Kan, A.; Sumitani, J.; Arai, M.
J. Ferment. Bioeng. 85, 144-149, 1998
A;Title: Cloning, nucleotide sequence, and expression of the Clostridium thermocellum ce
A;Title: Cloning, nucleotide sequence, and expression of the Clostridium thermocellum ce
A;Reference number: Z14077
A;Accession: T00045
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: UNIPROT:024780; EMBL:AB006822; NID:dl117395; PIDN:BAA22081.1; PID:dl
A;Experimental source: ATCC 27405
C;Genetics:
                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Paramecium tetraurelia
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T2675
R;Schwegmann, K.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
A;MoLecule type: DNA
A;Residues: 1-2533 «SGH>
A;Cross-references: UNIPROT:P90589; EMBL:X96400; PIDN:CAA65264.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 36; DB 2; Length 2533;
Pred. No. 98;
3; Mismatches 0; Indels
                                                                                              Score 38; DB 2; Length 380;
Pred. No. 8.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 980;
                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 alpha-51D-immobilization antigen - Paramecium tetraurelia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pha-51D immobilization antigen - Paramecium tetraurelia
                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
T00045
cellodextrin phosphorylase - Clostridium thermocellum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 36; DB 2;
Pred. No. 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85.7%; Scor.
57.1%; Pred. No. 4~,
... 3; Mismatches
                                                                                                                                                                 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Schwegmann, K.J.
submitted to the EMBL Data Library, March 1996
A;Reference number: 220506
A;Status: nroll
A, Residues: 304-320 <JAK>
C, Superfamily: silkworm pol protein
                                                                                              90.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 57.1%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A,Gene: alpha-51D
A,Genetic code: 8GC5
A,Introns: 280/3, 288/2, 1248/2
C,Superfamily: G surface protein
                                                           Query Match
Best Local Similarity 85./v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 57...
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |:|:|:|
2149 CIPITNC 2155
                                                                                                                                                                                                                                                                          [|||:||
CVPLSSC 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CIPMTAC 556
                                                                                                                                                                                                                                    1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Residues: 1-980 < KAW>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       550
```

A, Gene: cdp

ð d Genetics:

RESULT 5 T28674

ઠે d

ö

g

ò

```
A,Title: Differential expression of genes encoding a cysteine-rich keratin family in the A,Reference number: 146412, MUD:94358466; PMID:7521375
A,Accession: 146412
A,Status: preliminary, translated from GB/EMBL/DDBJ
A,Status: preliminary, translated from GB/EMBL/DDBJ
A,Rolecule type: mRNA
A,Residues: 1-191 <JEN>
A,Cross-references: UNIPROT:Q28583; EMBL:X73434; NID:g313719; PIDN:CAA51829.1; PID:g3137; C,Genetics:
A,Gene: A,Gene: C,Genetics: A,Gene: A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Appothetical protein HP1081 - Helicobacter pylori (strain 26695)
C;Species: Helicobacter pylori
S;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R.D.; Peterson, S; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKenney
Son, J.D.; Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, C.N.
A;Reference number: A64520; MUID:97394467; PMID:9252185
A;Reference number: A64520; MUID:97394467; PMID:9252185
A;Reference number: A64555
A;Reference number: A64550; MUID:92314230; PIDN:AAD0813E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pypothetical protein jhp0344 - Helicobacter pylori (strain J99)
C;Species: Helicobacter pylori
C;Species: Helicobacter pylori
C;Species: Helicobacter pylori
C;Species: Helicobacter pylori
C;Species: L2-reb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Accession: B7143
R;Alm, R.A.; Ling, L.S.L.; Moir, D.T.; King, B.L.; Brown, E.D.; Doig, P.C.; Smith, D.R.;
R;Alm, R.A.; Ling, L.S.L.; Moir, D.T.; King, B.L.; Brown, E.D.; Doig, P.C.; Smith, D.R.;
Nature 397, 176-180, 1399
A;Title: Genomic sequence comparison of two unrelated isolates of the human gastric pathk
A;Reference number: A71800; MUID:99120557; PMID:9923682
A;Status: preliminary
A;Residues: DAA
A;Residues: L207 - ARNS
A;Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:Q9ZM78; GB:AE001470; GB:AE001439; NID:g4154869; PIDN:AAD0592: A;Experimental source: strain J99 C;Genetics: A;Genetics: A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 78.6%; Score 33; DB 2; Length 207; Best Local Similarity 71.4%; Pred. No. 44; Matches 5; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2; Length 191;
41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Length 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 33; DB 2; Pred. No. 44; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Score 33; DB 2
; Pred. No. 41;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            134 CVPQTTC 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||: ||
91 CVPVCSC 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            zonadhesin - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 02-Sep-2000 #sequence_revision 02-Sep-2000 #text_change 09-Jul-2004
C;Accession: T34022
R;Hardy, D.M.; Garbers, D.L.
J; Biol. Chem. 270, 26025-26028, 1995
A;Title: A sperm membrane protein that binds in a species-specific manner to the egg ext
A;Reference number: Z21464; MUID:96064658; PMID:7592795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: S66336
A;Molecule type: DNA
A;Residues: 1-55 <THU>
A;Cross-references: UNIPROT:Q38989; EMBL:X86968; NID:g928913; PIDN:CAA60531.1; PID:g9289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-2476 < HAR>
A;Residues: 1-2476 < HAR>
A;Cross-references: UNIPROT: Q28983; EMBL: U40024; NID: g1066465; PID: g1066466; PIDN: AAC484
A;Experimental source: strain Meishan; testis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein kinase AK23 (BC 2.7.1.-) - Arabidopsis thaliana (fragment)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text_change 16-Aug-2004
C;Accession: 866336; SSB262
R;Thuemmler, F:; Kirchner, M.; Teuber, R.; Dittrich, P.
R;Thuemmler, F:; Kirchner, M.; Teuber, R.; Dittrich, P.
A;Title: Differential accumulation of the transcripts of 22 novel protein kinase genes A;Reference number: 866314; MUID:96123233; PMID:8534852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                keratin KAP5.4 - sheep
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Accession: 146412; S34215
C;Accession: 146412; B.C.
J: Invest. Dermatol. 103, 310-317, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: Zan
C;Function:
A;Description: may be involved in sperm adhesion to the zona pellucida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 34; DB 2; Length 2476;
Pred, No. 2.3e+02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / Match 78.6%; Score 33; DB 2; Length 55; Local Similarity 100.0%; Pred. No. 14; les 6; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: AK23
C;Superfamily: protein kinase homology
C;Keywords: ATP; phosphotransferase; protein kinase
F;1-55/Domain: protein kinase homology (fragment) <KIN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1505 CVPLSQC 1511
                                                                                                                                                               709 CVPLSKC 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CVPLTS 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTS 6
                                                                                   CVPLTSC
```

g

ò

27

ò 셤

Query Match

Genetics:

C;Accession: B36808

CVPLTSC 7

н

ð

```
Search completed: April 1, 2005, 09:33:27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75 CVMLTSC 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Job time : 12.1644 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-230 <WOO>
A;Cross-references: UNIPROT:Q64507; GB:M37759; NID:g200961; PIDN:AAA40106.1; PID:g200962
C;Superfamily: ultra-high-sulfur keratin
                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: DNA
A;Residues: 1-223 <WO2>
A;Cross-references: UNIPROT:Q62220; GB:M37760; NID:g200963; PIDN:AAA40107.1; PID:g200964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ultra-high-sulfur keratin 1 - mouse
Cispecies: Mus musculus (house mouse)
Cjate: 28-Jun-1991 #sequence_revision 28-Jun-1991 #text_change 09-Jul-2004
Cjacession: A3846
R;Wood, L.; Mills, M.; Hatzenbuhler, N.; Vogeli, G.
Biol. Chem. 265, 21375-21380, 1990
A;Title: Serine-rich ultra high sulfur protein gene expression in murine hair and skin c
A;Reference number: A38346; MuID:91065960; PMID:2250030
                                                                                                                                                                 C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 09-Jul-2004
C;Accession: A1966; B38346
R;Mood, L.; Mills, M.; Hatzenbuhler, N.; Vogeli, G.
J. Biol. Chem. 266, 4024, 1991
A;Title: Serine-rich ultra high sulfur protein gene expression in murine hair and skin on A;Reference number: A38660; MUID:91154184; PMID:1840598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A, Note: this is a correction
R, Wood, L.; Mills, M.; Hatzenbuhler, N.; Vogeli, G.
J. Biol. Chem. 265, 21375-21380, 1990
A;Title: Serine-rich ultra high sulfur protein gene expression in murine hair and skin A; Reference number: A38346; MUID:91065960; PMID:2250030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Molecule type: DNA
A,Residues: 1-21,'GGCGSGCGGCGSNCGGCGSSCCKPVCC',22-40,'GSS',44-45,'G',47-48,'S',50,'GSS'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene 20 protein - saimiriine herpesvirus 1 (strain 11)
C;Species: saimiriine herpesvirus 1
A;Note: host Saimiri sciureus (common squirrel monkey)
C;Date: 31-Dec-1992 #sequence_revision 31-Dec-1992 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:M37759; NID:g200961; PIDN:AAA40106.1; PID:g200962 A;Note: the sequence reported in this paper has been corrected. See A38660 C;Superfamily: ultra-high-sulfur keratin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78.6%; Score 33; DB 2; Length 223; 71.4%; Pred. No. 47; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      h Similarity 71.4%; Pred. No. 48; 5; Conservative 1; Mismatches
                                                                                                                                         ultra-high-sulfur keratin 2 - mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 71.40,
Best Local Similarity 71.40,
134 CVPQTAC 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28 CVPVCSC 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CVPVCSC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
WZBEM6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
RiAlbrecht, J.
Submitted to the EMBL Data Library, January 1992
Submitted to the EMBL Data Library, January 1992
Submitted to the EMBL Data Library, January 1992
Apescription: Primary structure of the herpesvirus saimiri genome.
A; Reference number: A36006
A; Molecule type: DNA
A; Reference Type: DNA
A; References: GB:X64346; NID:g60320; PIDN:CAA45644.1; PID:g60342
A; Cross-references: GB:X64346; NID:g60320; PIDN:CAA45644.1; PID:g60342
A; Cross-references: GB:X64346; NID:g60320; PIDN:CAA45644.1; PID:g60342
A; Title: Primary structure of the herpesvirus saimiri genome.
A; Reference number: A3709; MUID:9233368; PMID:1321287
A; Title: Primary structure of the herpesvirus saimiri genome.
A; Reference number: A3709; MUID:923368; PMID:1321287
A; Contents: annotation; possible protein-coding frames
A; Note: neither amino acid nor nucleotide sequence is given
C; Superfamily: varicella-zoster virus gene 35 protein
C; Superfamily: varicella-zoster virus gene 36 protein
C; Superfamily: varicella-zoster virus gene 37 protein
C; Superfamily: varicella-zoster virus gene 37 protein
C; Superfamily: varicella-z
```

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

Run on:

April 1, 2005, 03:33:32; Search time 42.863 Seconds (without alignments) 83.628 Million cell updates/sec

US-09-761-636A-11 42 1 CVPLTSC 7 Title: Perfect score: Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

1612378 seqs, 512079187 residues Searched:

1612378 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Osirbs drosophila			Q03271 nasonia vit	Q833x0 enterococcu	P60370 homo sapien			_				Q700k0 rattus norv	Q726v5 desulfovibr	P60411 homo sapien	рошо		_		homo	) homo	mus m		homo	Q6w4x9 homo sapien	bos t	_	m		P60369 homo sapien	Q7s723 neurospora	
SUMMARIES	ID	Q8IRB8	P90649	O9GMW9	PO13 NASVI	Q833 <u>x</u> 0	K105_HUMAN	018464	Q6XQM8	024780	P90589	Q27183	Q8CG65	Q700K0	Q726V5	K109 HUMAN	K10B_HUMAN	Q823 <u>1</u> 4	097887	070970	Q8TF36	BMER HUMAN	BMER_MOUSE	PKP1_BOVIN	QBIYA6	Q6W4X9	Ø9XSV8	Q8SPM4	Q81Q18	Q6IKI6	K103_HUMAN	075723	
	DB	1							7																								
	Length	575	2543	127	383	594	271	337	556	980	2533	2533	4998	5141	265	292	298	379	389	401	565	685	685	727	745	1569	1637	5146	23015	201	221	496	
	% Query Match		92.9					•	85.7	•										83.3		•	•				•	•	•				
	Score	39	39	38	38	37	36	36	36	36	36	36	36	36	35	35	35	35	35	35	35	35	35	32	32	32	32	35	35	34	34	34	
	Result No.	-	7	m	4	ស	ø	7	8	0	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31	

OBmikO crocuta cro O6jlaO lymphocysti O6la4O homo sapien O6la41 homo sapien O62635 rattus norv O28983 sus scrofa O8wwq8 h stabilin O9y677 homo sapien O38989 arabidopsis O38989 arabidopsis O91635 cydia pomon O86002 setre	-
ANDR CROCR Q6JLA0 Q6LA41 Q6LA41 P79927 MUCZ RAT ZAN FIG SBNZ HUMAN Q9Y6R7 Q3689 Q91R35	028583
4000044400000	~
912 1193 1246 1374 1513 2476 2551 2843 2843 101 101	191
81.0 81.0 81.0 81.0 81.0 81.0 78.6 78.6	78.6
ব্ৰুক্ত্ৰ্ক্ত্ৰ্ক্ত্ৰ্ব্ৰ লেললললললললললল	33
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	45

## ALIGNMENTS

PRT; 2543 AA.

```
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2158 CIPITSC 2164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein.
                                                                                                         156D suface antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
ses 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ^
                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                             NCBI_TaxID=5886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chromosomes."
                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=156;
                                                                                                                                                                           Paramecium
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Caron F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O9GMM9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           O9GMW9
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                 MEDLINE=22446065, PubMed=12537568;
MEDLINE=22446065, PubMed=12537568;
MEDLINE=22446065, PubMed=12537568;
MEDLINE=22446065, PubMed=12537568;

Rati S., Adams M., Champe M., Dugan S.P., Frise B., Hodgson A.,
Batel S., Adams M., Champe M., Dugan S.P., Frise B., Hodgson A.,
George R.A., Hoskins R.A., Laverty T., Muzny D.M., Nelson C.R.,
Pacled J.M., Park S., Pfeiffer B.D., Richards S., Sodergren B.J.,
Svirskas R., Tabor P.E., Man K., Stapleton M., Sutton G.G., Venter C.,
Weinstock G., Scherer S.E., Myers E.W., Gibbs R.A., Rubin G.M.;
"Finishing a whole-genome shotgun: Release 3 of the Drosophila
melanogaster euchromatic genome sequence.",
                                                                                                                                                                                                                                                                                                               MEDLINE=22426070; PubMed=12537573;
Kaminker J.S., Bergman C.M., Kronmiller B., Carlson J., Svirskas R., Patel S., Frise E., Wheeler D.A., Lewis S.E., Rubin G.M., Ashburner M., Celniker S.E.;
"The transposable elements of the Drosophila melanogaster euchromatin: a genomics perspective.",
Genome Biol. 3:RESEARCH0084-RESEARCH0084 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=22426069; PubMed=12537572;
Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
Smith C.D., Tupy J.L., Whitfied E.J., Bayraktaroglu L., Berman B.P.,
Bettencourt B.R., Celniker S.E., de Grey A.D., Drysdale R.A.,
Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Annotation of the Drosophila melanogaster euchromatic genome: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ٠,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 575;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GO; GO: 00004295; F: chymotrypsin activity; IEA.
GO; GO: 00004295; F: chymotrypsin activity; IEA.
GO; GO: 00004295; F: trypsin activity; IEA.
GO; GO: 00004295; P: trypsin activity; IEA.
GO; GO: 0000508 P: proteclysis and peptidolysis; IEA.
InterPro; IPR00125; Peptidase S1.
InterPro; IPR00131; Peptidase S1.
InterPro; IPR001031; Peptidase S1A.
INTERPRO; IPR001031; CHYMOTRYPSIN.
SMART; SM001020; TRYPSIN DOM; 1.
PROSITE; PS50240; TRYPSIN DOM; 1.
PROSITE; PS00135; TRYPSIN SER; 1.
INTERPROSITE; PS00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SIMILARITY: Belongs to peptidase family SI EMBL; AR003480; AAN11589.1; -. PASP; PO0760; 3BTK. FlyBase; FBgn0052260; CG32260.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 39; DB 2;
Pred. No. 31;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        systematic review.";
Genome Biol. 3:RESEARCH0083-RESEARCH0083(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.9%;
85.7%;
Science 287:2185-2195(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lewis S.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FlyBase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FlyBase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
ò
```

204 CLPLTSC 210

N

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                         STRAIN=156;
MEDLINE=96313351; PubMed=8768414;
BOUTGAIn-Guglielmetti F., Caron;
"Molecular characterization of the D surface protein gene subfamily in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Brain parietal lobe;
MEDLINE=21458551; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;
Osada M., Hida M., Kusuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,
Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;
"Assignment of 118 novel cDNAs of cynomolgus monkey brain to human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mácaca fascicilaris (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                              Paramecium primaurelia.
Eukaryota, Alveolata, Ciliophora, Oligohymenophorea, Peniculida,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2543;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90.5%; Score 38; DB 2; Length 127;
85.7%; Pred. No. 11;
ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR002895; Paramecium SA.
PFfam; PF01508; Paramecium SA; 20.
SMART; SM00639; PSA; 25.
SEQUENCE 2543 AA; 267040 MW; 828EF797CB012902 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gene 275:31-37(2001).
EMBL, AB047606; BAB12130.1; -.
Hypothetical protein.
SEQUENCE 127 AA; 12961 MW; EB168525256992C0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2001 (TrEMBLrel. 16, Last sequence update) 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
01-MAY-1997 (TrEMBLrel. 03, Created)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92.9%; Score 39; DB 2; I
llarity 71.4%; Pred. No. 1.3e+02;
Conservative 2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127 AA
                                                                                                                                                                                                                                                                                                                                                                                   Paramecium primaurelia.";
J. Eukaryot. Microbiol. 43:303-313(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001 (TrEMBLrel. 16, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X96616; CAA65436.1; -. PIR; T31687; T31687.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107 CVPLSSC 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

```
Nature 405:311-319(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     485 CLPMTSC 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Root hairs;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=KRTAP10-5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shimizu N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               K105 HUMAN
ID K105 H
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=93196484; PubMed=8383793;

Burke W.D., Eickbush D.G., Xiong Y., Jakubczak J.L., Eickbush T.H.,
Bucke W.D., Eickbush D.G., Xiong Y., Jakubczak J.L., Eickbush T.H.,
Sequence relationship of retrotransposable elements R1 and R2 within
and between divergent insect species.";
Mol. Biol. Evol. 10:163-185(1993).

-!- CATALYTIC ACTIVITY: N deoxymucleoside triphosphate = N diphosphate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Enterococcus faecalis (Streptococcus faecalis).
Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [1] — SEQUENCE FROM N.A. SEQUENCE FROM N.A. STRUNDENCE FROM N.A. STRUNDENCE FROM N.A. STRUNDENCE 1080613; STRUNDENCE 22550857; Pubmed=12663927; DOI=10.1126/science.1080613; Paulsen I.T., Banerjei L., Myers G.S.A., Nelson K.E., Seshadri R.,
                                                                                                                                             01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Retrovirus-related Pol polyprotein from type I retrotransposable element RI [Contains: Reverse transcriptase (EC 2.7.7.49);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00078; RVT; 1.
PROSITE; PS50878; RT_POL; 1.
Endonuclease; Hydrolase; Nuclease; RNA-directed DNA polymerase;
Transferase; Transposable element.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <1 88 Reverse transcriptase.</p>
229 383 Nucleic acid-binding endonuclease.
383 AA; 43411 MW; DE296B380925251B CRC64;
                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Hymenoptera; Apocrita; Chalcidoidea;
Pteromalidae; Pteromalinae; Nasonia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 38; DB 1; Length 383;
Pred. No. 32;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     + {DNA}(N).
SIMILARITY: Contains 1 reverse transcriptase domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Glycosyl hydrolase, family 35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       594 AA.
                                                                                        383 AA
                                                                                                                                                                                                                                                                                                                                         Nasonia vitripennis (Parasitic wasp)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; L00942; AAA30339.1; -. PIR; D44490; D44490.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                h 90.5%;
Similarity 85.7%;
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000477; RVTse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OrderedLocusNames=EF1805;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                               Endonuclease] (Fragment)
                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ||||:||
CVPLSSC 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=1351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=7425;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (DNA) (N)
                                                                                  PO13 NASVI
Q03271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                 PO13 NASVI
TID PO13 NASVI
DT 01-JUN
DT 25-JUN
DE ENGENEN
DE ENGENEN
OC NEGRIV
OC PECTOR
OC PETOR
OC PET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q833X0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 5
9833X0
10 08333X0
10 08333
AC 08333
AC 08333
DT 01-01
DT 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

```
Read T.D., Fouts D.E., Eisen J.A., Gill S.R., Heidelberg J.F.,
Tettelin H., Dodson R.J., Umayam L.A., Brinkec L.M., Beanan M.J.,
Daugherty S.C., DeBoy R.T., Durkin S.A., Kolonay J.F., Madupu R.,
Nelson W.C., Vamathevan J.J., Tran B., Upton J., Hansen T., Shetty J.,
Khouri H.M., Utterback T.R., Radune D., Ketchum K.A., Dougherty B.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hattori M., Fujiyama A., Taylor T.D., Watanabe H., Yada T.,
Park H.-S., Toyoda A., Ishii K., Totoki Y., Choi D.-K., Soeda B.,
Ohki M., Takagi T., Sakaki Y., Taudien S., Blechschmidt K., Polley A.,
Menzel U., Delabar J., Kudok K., Lehmann R., Patterson D.,
Reichwald K., Rump A., Schillhabel M., Schudy A., Zimmermann W.,
Shosenthal A., Radoh J., Shibuya K., Kawasaki K., Asakawa S.,
Shintani A., Sasaki T., Nagamine K., Mitsuyama S., Antonarakis S.E.,
Minoshima S., Shimizu N., Nordsiek G., Hornischer K., Brandt P.,
Scharfe M., Schoen O., Desario A., Reichelt J., Kauer G., Bloecker H.,
Ramser J., Beck A., Kiages S., Hennig S., Riesselmann L., Dagand B.,
Wehrmeyer S., Borzym K., Gardiner K., Nizetic D., Francis F.,
Lehrach H., Reinhardt R., Yaspo M.-L.;
"The DNA sequence of human chromosome 21.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "A cluster of 21 keratin-associated protein genes within introns of another gene on human chromosome 21q22.3.";
Genomics 83:679-693(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    K105. HUMAN STANDARD, PRT, 271 AA.

F60370; Q70LJ3;
29-MAR-2004 (Rel. 43, Last sequence update)
29-MAR-2004 (Rel. 43, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
25-OCT-2004 (Rel. 45, Last annotation update)
(High sulfur keratin associated protein 10-5 (Keratin associated protein 18-5) (Keratin associated protein 18-5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND VARIANTS ASN-20; LEU-235 AND ARG-268
                                                                                                                                                                                                                         Fraser C.M.;
"Role of mobile DNA in the evolution of vancomycin-resistant
                                                                                                                                                                                                                                                                                                    Enterococcus faecalis.";
Science 299:2071-2074(2003);
-!- SIMILARITY: Belongs to family 35 of glycosyl hydrolases.
EMBL; ASO16952; AAO81573.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PubMed=15028290; DOI=10.1016/j.ygeno.2003.09.024;
Shibuya K., Obayashi I., Asakawa S., Minoshima S., Kudoh J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synonyms=KAP10.5, KAP18-5, KRTAP10.5, KRTAP18-5, KRTAP18.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Length 594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=20289799; Pubmed=10830953; DOI=10.1038/35012518;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complete proteome; Hydrolase.
SEQUENCE 594 AA; 68456 MW; 4940914DE5174E0D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GO; GO:0009341; C:beta-galactosidase complex; IEA. GO; GO:0004565; F:beta-galactosidase activity; IEA. GO; GO:0016787; F:hydrolase activity; IEA. GO; GO:0005975; P:carbohydrate metabolism; IEA. FinterPro; IFR001944; Glyco, hydro. FinterPro; IFR001944; Glyco, hydro. FinterPro; PR01301; Glyco, hydro. 35; I. PR1NTS; PR01701; GLHTDRLASE35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 37; DB
Pred. No. 78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Conservative
```

```
234 CVPISSC 240
                                                         018464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q6XQM8
                                  RESULT 7
018464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q6XQM8
   셤
                                                                    엄
                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                          guilfur KAP gene domain on human chromosome 21.";
J. Invest. Dermatol. 122:147-158(2004).

-I rowest. Dermatol. 122:147-158(2004).

-I rowest. Dermatol. 122:147-158(2004).

-I rowest. Dermatol. The hair cortex, hair keratin intermediate filaments are embedded in an interfilamentous matrix, consisting of hair keratin-associated protein (KRTAP), which are essential for the formation of a rigid and resistent hair shaft through their extensive disulfide bond cross-linking with abundant cysteine residues of hair keratins. The matrix proteins include the high-sulfur and high-glycine-tyrosine keratins.

-I SUBUNIT: Interacts with hair Keratins.

-I TISSUE SPECIFICITY: Restricted to hair root, not detected in any
                                          Rogers M.A., Langbein L., Winter H., Beckmann I., Praetzel S., Schweizer J., "Helr keratin associated proteins: characterization of a second high
                                                                                                                                                                                                                                                                                                               EMBL; AB075352; BAD01539.1; -.
EMBL; AA073602; -; NOT ANNOTATED_CDS.
EMBL; AJ566384; CAD97464.1; -.
Genew; HGNC:22969; KRTAP10-5.
InterPro; IPR002494; Keratin B2.
Keratin; Multigene family; Polymorphism; Repeat.
22 X 5 AA repeats of C-C-X(3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 36; DB 1; Length 271; Pred. No. 56; O; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -> R (in Ref. 3).
20E32DB262D523ED CRC64;
                                                                                                                                                                                                               SIMILARITY: Belongs to the KRTAP type 10 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ) -> N.
/FIId=VAR_017696.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -> L.
FTId=VAR_017697.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -> R. -
FTId=VAR_017698.
            261-271 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27567 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85.7%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166
181
191
203
213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268 271 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                     others tissues
                                 PubMed=14962103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      152
162
177
187
199
209
214
233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268
[3]
SEQUENCE (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       transferase activity, transferring glycosyl. . .; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                          STRAIN=curvata;
MEDLINE=98049320; PubMed=9389452;
DOI=10.1002/(SICI)1097-0177(199711)210:3<264::AID-AJA7>3.3.CO;2-D;
Arnold J.M., Eri R., Degnan B.M., Lavin M.F.;
"Novel gene containing multiple epidermal growth factor-like motifs transiently expressed in the papillae of the ascidian tadpole
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Nicotinate phosphoribosyltransferase-like protein.
Pugu rubripes (Japanese pufferfish) (Takifugu rubripes).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Buteleostei; Actinopterygii; Percomosthi; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Takifugu.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.7%; Score 36; DB 2; Length 337; 71.4%; Pred. No. 70; tive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 36; DB 2; Length 556;
Pred. No. 1.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Huang C.-H., Peng J., Chen Y.;
Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY214333; AAP69611.1;
                                                                                                                              Herdmania momus (Brown sea squirt).
Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea;
Stolidobranchia; Pyuridae; Herdmania.
NCBI_TaxID=7733;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF04095; NAPRTase; 1.
Glycosyltransferase; Transferase.
SEQUENCE 556 AA; 60962 MW; 7CB26180D6B37F6A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unknown protein. 5CCA0924118D8FC6 CRC64;
                                                          Last sequence update)
Last annotation update)
                               01-07AV-1998 (TrEMBLrel. 05, Created)
01-07AN-1998 (TrEMBLrel. 05, Last sequence
01-MAX-2004 (TrEMBLrel. 26, Last annotat:
Hypothetical protein HmEGFL-1 precursor.
Name-HmEGFL-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Potential,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR002919; Cysrich_TIL.
InterPro; IPR006210; IEGF.
Pfam; PF01826; TLL; 4.
Hypothetical protein; Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR007229; NAPRTase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        337 AA; 35617 MW;
                                                                                                                                                                                                                                                                                                                                                                                                    Dev. Dyn. 210:264-273(1997).
EMBL; U82540; AAB67704.1; -.
HSSP; Q90248; 1HX2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85.78;
71.48;
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Local 5; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |||::||
199 CVPISSC 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ^
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO; GO:0016757;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                      larvae.";
                018464;
```

÷

Gaps

; 0

Conservative

5,

Best Loca Matches

CVPLTSC 7

ð

ö

a

ò

```
SEQUENCE FROM N.A.
STRAIN=ICR; TISSUE=Brain;
A Goncal-ves N., Simon-Charottes D., Creveaux I., Meiniel A.,
Guenet J-L., Meiniel R.;
"Mouse SCO-spondin, a gene of the thrombospondin type 1 repeat (TSR)
The superfamily expressed in the brain.";
Gene 312:263-270(2003).

SIMILARITY: Contains 1 F5/8 type C domain.

EMBL; AJ491857; CAD42654.1; -.

EMBL; AJ491857; CAD42654.1; -.

RMSSP; POIl130; HAJJ.

MGD; MGI:2674311; Scospondin.

GO; GO:0005737; C:cytoplasm; IC.

RMCD; MRI:2674311; Scospondin.

GO; GO:0005737; C:cytoplasm; IC.

RI InterPro; IPR0022919; Cysrich TIL.

RI InterPro; IPR006209; EGF_like.

RI InterPro; IPR006209; Cysrich TIL.
                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Alveolata; Ciliophora; Oligohymenophorea; Peniculida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                    ;
0
                               85.7%; Score 36; DB 2; Length 2533; 57.1%; Pred. No. 5.2e+02; ive 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR002895; Paramecium SA.
Pfam; PF01508; Paramecium SA; 22.
SMART; SM00639; PSA; 27.
SEQUENCE 2533 AA; 263995 MW; 261BD09806BC344D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Schmidt H.J.;
Submitted (MAR-1995) to the EMBL/GenBank/DDBJ databases.
EMBL; X88135; CAA59447.1; -.
PIR; T28674; T28674.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Q27183;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS 2; Local Similarity 57%; Score 36; DB 2; Local Similarity 57.1%; Pred. No. 5.2e+02; les 4; Conservative 3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                      PRT; 2533 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 4998 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=Scospondin; Synonyms=sco-spondin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alpha-51D-immobilization antigen.
Name=alpha-51D-gene;
Query Match
Best Local Similarity 57.1.
A; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Paramecium tetraurelia.
                                                                                                                                                                                                                                    2149 CIPITNC 2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2149 CIPITNC 2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CVPLTSC 7
                                                                                                                                                                     1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. STRAIN=51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Paramecium.
NCBI_TaxID=5888;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCO-spondin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8CG65;
Q8CG65;
                                                                                                                                                                                                                                                                                                                                                                                                      027183
                                                                                                                                                                                                                                                                                                                                     RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08CG65
                                                                                                                                                                                                                                                                                                                                                                       027183
                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DER REAL PROPERTION OF THE PROPERTIES OF THE PRO
                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                XTRAIN-ATCC27403.

Kawaguchi T., Ikeuchi Y., Tsutsumi N., Kan A., Sumitani J., Arai M.,
"Cloning, nucleotide succession of the Clostridium
"Cloning, nucleotide strin phosphorylase gene and its application to
synthesis of cellulase inhibitors.";
J. Ferment. Bioeng. 85:144-149(1998).

BIR: 700045; T00045.

InterPro; IPR010383; Glyco_transf_36.

Pfam; PF06165; Glyco_transf_36.

SEQUENCE 980 AA; Ill83 MW; 8A8C8EE3F5370831 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clostridium thermocellum.
Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
Clostridium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Paramecium tetraurelia.
Eukaryota; Alveolata; Ciliophora; Oligohymenophorea; Peniculida;
                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'Match 85.7%; Score 36; DB 2; Length 980; Local Similarity 57.1%; Pred. No. 2e+02; nes 4; Conservative 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schwegmann K.J.;
Schwegmann K.J.;
Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.
EMBL; X96400; CAA65264.1; -.
PIR; T28675; T28675.
InterPro; IPR02895; Paramecium SA.
Pfam; PF01508; Paramecium SA.
Pfam; SW00639; PSA; 27.
SMART; SW00639; PSA; 27.
SEQUENCE 2533 AA; 264141 MW; EAED7F21E408C371 CRC64;
                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=51;
Schwegmann K., Klein H., Schmidt H.;
Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Alpha-1-1D immobilization antigen.
Name-alpha-51D;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 2533 AA
                                                                                                                                                                                                                                                                                                                                        980 AA
                                  1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1997 (TrEMBLrel. 03, Created)
                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1998 (TrEMBLrel. 05, 01-JAN-1998 (TrEMBLrel. 05, 01-MAR-2004 (TrEMBLrel. 26, Cellodextrin phosphorylase.
                                  5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               550 CIPMTAC 556
                                                                                                                                                                  403 CIPLVSC 409
                                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                    CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=5888;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=1515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Paramecium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=cdp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                 024780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P90589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                  Matches
                                                                                                                                                                                                                                                               RESULT 9
024780
10 024780
AC 02471
DT 01-03
DT 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
```

ò 셤 

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=15077118; DOI=10.1038/nbt959;

Heidelberg J.F., Seshadri R., Haveman S.A., Hemme C.L., Paulsen I.T.,

Medleberg J.F., Seshadri R., Haveman S.A., Hemme C.L., Paulsen I.T.,

Molonay J.F., Eisen J.A., Ward N.L., Methe B.A., Brinkac L.M.,

Daugherty S.C., DeBoy R.T., Dodson R.J., Durkin A.S., Madupu R.,

Nelson W.C., Sullivan S.A., Fouts D.E., Haft D.H., Selengut J.,

Peterson J.D., Davidsen T.M., Zafar N., Zhou L., Radune D.,

Dimitrov G., Hance M., Tran K., Khouri H.M., Gill J., Utterback T.R.,

Peldblyum T.V., Wall J.D., Voordoww G., Fraser C.M.;

The genome sequence of the anaerobic, sulfate-reducing bacterium

Desulfovibrio vulgaris Hidenborough.";

I. Nat. Biotechnol. 22:554-559(2004).

R TIGR; DVU3001; -..

R TIGR; DVU3001; -..

W Complete proteome.

SEQUENCE 265 AA, 29485 MW, FCGBDA86512IEE04 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteria; Proteobacteria; Deltaproteobacteria; Desulfovibrionales;
Desulfovibrionaceae; Desulfovibrio.
NCBI_TaxID=882;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Desulfovibrio vulgaris (strain Hildenborough / ATCC 29579 / NCIMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                 85.7%; Score 36; DB 2; Length 5141; 71.4%; Pred. No. 1.1e+03; ive 2; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 83.3%; Score 35; DB 2; Length 265; Best Local Similarity 71.4%; Pred. No. 87; Matches 5; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      5141 AA; 550644 MW; 1772AE67F02CA5E3 CRC64;
                        05-UUL-2004 (TrEMBLrel. 27, Created)
05-UUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            265 AA
IPR002172; LDL receptor_A. IPR000884; TSP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conserved domain protein. OrderedLocusNames=DVU3001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 71.4
hes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4713 CVPISSC 4719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q726V5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
Q726V5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Meiniel O.;
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
L. Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
R. SIMILARITY: COntains 1 F5/8 type C domain.
R. HSSP; P01130; 1AJJ.
R. GO; GO:007155; P:Cell adhesion; IEA.
R. InterPro; IPR006209; Cysrich TIL.
R. InterPro; IPR006209; EGF 11ke.
R. InterPro; IPR001499; EGF 11ke.
R. InterPro; IPR001499; EGF 11ke.
R. InterPro; IPR001499; EMF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 4998;
                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PSSO122; FASEC 3; 1.
PROSITE; PSC0261; GIYCO HORMONE_BETA_1; UNKNOWN_2.
PROSITE; PSC02061; LDLRA_1; 8.
PROSITE; PSSO068; LDLRA_2; 10.
PROSITE; PSSO092; TSP1; 25.
PROSITE; PSC01209; WWPC_1; UNKNOWN_1.
SROSITE; PSC01209; WWPC_2; 2.
SEQUENCE 4998 AA; S$5028 WW; DA2ABABDA47DF225 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                    CTCK 2; 1.
EGF 2; 2.
EGF 3; 1.
GLYCO_HORMONE_BETA_1; UNKNOWN_2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 Score 36; DB 2; 11 Jarity 71.4%; Pred. No. 1e+03; Conservative 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 5141 AA
                                                                                                                                                                                                                                                                                                                                                                                     PROSITE, PS00196, COPPER BLUE, UNKNOWN 1. PROSITE, PS01225, CTCK 2, 1. PROSITE; PS01186, EGF 2, 2.
    INCEPTO: 1 FROUD421; FA58 C.
INCEPTO: IPRO00421; FA58 C.
INCEPTO: IPRO01545; Gly hormoneB.
INCEPTO: IPRO0172; IDL_receptor_A.
INCEPTO: IPRO008037; Prof_ inh_PMP.
INCEPTO: IPRO00884; TSP1.
INCEPTO: IPRO008085; TSP1.
INCEPTO: IPRO01007; VWF_C.
INCEPTO: IPRO01007; VWF_C.
                                                                                                                                  Pfam; PF07546; EMI; 1.
Pfam; PF00754; F5 F8 Lype_C; 1.
Pfam; PF00057; LdI recept_a; 10.
Pfam; PF01826; TIL; 10.
Pfam; PF01826; TIL; 10.
Pfam; PF00099; TSP_1; 25.
                                                                                                                                                                                                                                                            PRINTS; PR00261; LDLRECEPTOR
PRINTS; PR01705; TSP1REPEAT.
                                                                                                                                                                                                                                                                                         SMART; SM00231; FA58C; 1.
SMART; SM00068; GHB; 1.
SMART; SM00192; LDLa; 10.
SMART; SM00209; TSP1; 25.
SMART; SM00214; VWC; 4.
SMART; SM00216; VWD; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4570 CVPISSC 4576
                                                                                                                                                                                                                                                Pfam; PF00094; VWD; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
les 5; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=sco-spondin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCO-spondin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q700K0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0700K0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
```

셤

```
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                          REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                               REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                   REPEAT
                                                                                                                                                                                                                                                                                                                                REPEAT
                                                                                                                                                                                                                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                                                                                                                              REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE=20289799; PubMed=10830953; DOI=10.1038/35012518;

A Hattori M., Fujiyama A., Taylor T.D., Watanabe H., Yada T.,

A Dark H.-S., Toyoda A., Ishii K., Totoki Y., Choi D.-K., Soeda E.,

A Ohki M., Takagi T., Sakaki Y., Taudien S., Blechschmidt K., Polley A.,

Menzel U., Delabar J., Kumpf K., Lehmann R., Patterson D.,

Reichwald K., Rump K., Schillhabel M., Schudy A., Zimmermann W.,

Rosenthal A., Kudoh J., Shibuya K., Mayasaki K., Asakawa S.,

Rosenthal A., Sasaki T., Nagamine K., Mitsuyama S., Antonarakis S.E.,

Minoshima S., Shimizu N., Nordsiek G., Hornischer K., Brandt P.,

Scharfe M., Schoen O., Desario A., Hennig S., Riesselmann L., Dagand E.,

Wehrmeyer S., Borzym K., Gardiner K., Nizetic D., Francis F.,

Lehracch H., Reinhardt R., Yaspo M.-L.;

He Daya Schare S., Schoen C., Desario M.-L.;

Lehracch H., Reinhardt R., Yaspo M.-L.;

Mature 405:311-319(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schweizer J.;
"Hair keratin associated proteins: characterization of a second high sulfur kap gene domain on human chromosome 21.";
J. Invest. Dermatol. 122.147-158 (2004).
-:- FUNCTION: In the hair cortex, hair keratin intermediate filaments are embedded in an interfilamentous matrix, consisting of hair keratin-associated protein (KRTAP), which are essential for the formation of a rigid and resistant hair shaft through their extensive disulfide bond cross-linking with abundant cysteine residues of hair keratins. The matrix proteins include the high-sulfur and high-glycine-tyrosine keratins.
-:- SUBINIT: Interacts with hair keratins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IsoId=P60411-1; Sequence=Displayed;
TISSUE SPECIFICITY: Restricted to hair root, not detected in any
others tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                    "A cluster of 21 keratin-associated protein genes within introns of another gene on human chromosome 21q22.3.";
Genomics 83:679-693(2004).
                                                                                                                                                                           25-OCT-2004 (Rel. 45, Last annotation update)
Keratin associated protein 10-9 (Keratin associated protein 10.9)
(High sulfur keratin associated protein 10.9) (Keratin associated
                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Scalp;
PubMed=14962103;
Rogers M.A., Langbein L., Winter H., Beckmann I., Praetzel S.,
                                                                                                                                                                                                                                                                                                                                                           TISSUB=Root hairs;
PubMed=15028290; DOI=10.1016/j.ygeno.2003.09.024;
Shibuya K., Obayashi I., Asakawa S., Minoshima S., Kudoh J.,
                                                                                                                                                                                                                                                       Synonyms=KAP10.9, KAP18-9, KRTAP10.9, KRTAP18-9, KRTAP18.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: Belongs to the KRTAP type 10 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Event=Alternative splicing; Named isoforms=1;
                                                                                                                                                                                                        (High sulfur keratin associated protein 10.9) (Ko
protein 18-9) (Keratin associated protein 18.9).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Comment=A number of isoforms are produced;
                                                                                                                    292 AA
                                                                                                                                                                Last sequence update)
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND VARIANT TYR-182.
                                                                                                                    PRT;
                                                                                                                               P60411; Q70LJ1;
29-MAR-2004 (Rel. 43, Created)
29-MAR-2004 (Rel. 43, Last seq
25-OCT-2004 (Rel. 45, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 244-292 FROM N.A.
                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                             |||:|| |
CVPVTDC 13
              CVPLTSC
                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                      Name=KRTAP10-9;
                                                                                                                                                                                                                                                                                                                                                                                                         Shimizu N.;
                                                                                                                    K109 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -:
                                        셤
                                                                                                                      ઠે
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                   Alternative splicing; Keratin; Multigene family; Polymorphism; Repeat. DOMAIN 26 254 25 X 5 AA repeats of C-C-X(3). REPEAT 26 30 1. REPEAT 31 35 2. REPEAT 36 40 3. REPEAT 57 61 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 35; DB 1; Length 292;
Pred. No. 96;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /FTId=VAR_017739.
7 -> C (in Ref. 3).
5BAB527FB59C46B9 CRC64;
                                                                                                                                                        EMBL; AB076356; BAD01543.1; -
EMBL; AL773602; -: NOT ANNOTATED_CDS.
EMBL; AJ566386; CAD97466.1; -
GANW: HONC:22971; KRTAP10-9.
InterPro; IPR002494; Keratin_B2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ٠
۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
29976 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83.3%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Query Match
Best Local Similarity 71.40,
Best Local Similarity
5; Conservative
                                                                                                                                                                                                                                                                                              30
35
40
61
83
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
191
201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |||::||
244 CVPVSSC 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 257 2
292 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARIANT
```

Search completed: April 1, 2005, 09:26:03 Job time : 44.863 secs

THIS PAGE BLANK (USPIO)

```
Novel pro
Human rep
Propionib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Murine TA
Murine TA
Murine TA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel hum
Novel hum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human cro
Human pol
Human alb
Albumin f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Propionib
Novel hum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Propionib
Propionib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human rep
Human tes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aau04530 VEGF base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Enterococ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Propionib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human ner
                                                                                 03:27:37 , Search time 52.8356 Seconds (without alignments) 51.240 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Abg13170
Abb16042
Abt49844
Adt49884
Adt49883
Adt49883
Adt49883
Abd8425
Abd60758
Abg30203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Abm45531
Abw02001
Aam99932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Adľ78350 /
Ade07963 |
Adj92159 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aam94953
Aau49012
                                                                                                                                                                                                                                                                                  2105692
GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                    2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                         protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU04530
AAU65085
AAU6508170
ABB16042
ADT49843
ADT49843
ADT49843
ADT49843
ADT49843
ADT49843
ADT49843
ADT49843
ABM6423
ABM6423
ABM6423
ABM6423
ABM6423
ABM655
ABM6553
ABM6563
ABM6563
ABM6563
ABM6563
ABM6563
ABM6563
ABM6563
ABM6563
ABM6663
A
                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           geneseqp20028;*
geneseqp2003as:*
geneseqp2003bs:*
geneseqp20048;*
                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                    Geneseq 16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqp2001s:*
                                                                                                                                                                                                                                                                                                             seq length: 0
seq length: 200000000
                                                                                                                                               US-09-761-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                    April 1, 2005,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
61
65
65
80
80
80
270
270
270
270
270
270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
             Copyright
                                                                                                                                                                           1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein -
                                                                                                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                      о
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                    Run
```

hai	gen	alb	in f	den	cel	$^{\mathrm{cho}}$	NHP	Cro	cho	sec	pro		pro		MHP	PC4	kele	pro	muc	
Human		Human	Albumin f	Human	Human	Human	Human	Human	Human	Human	Novel	Human	Human	Human	Human	Human	Cytoskele	Human	Human	
Adj92163	Aae07062	Abg65086	Ad178353	Aae07119	Ado41983	Aau99293	Ads18361	Abw02006	Aau99292	Abu11857	Ade07923	Abw02004	Adm04861	Ado00978	Ads18359	Aao29572	Adc56921	Adm87331	Adr18921	
ADJ92163	AAE07062	ABG65086	ADL78353	AAE07119	ADO41983	AAU99293	ADS18361	ABW02006	AAU99292	ABU11857	ADE07923	ABW02004	ADM04861	AD000978	ADS18359	AA029572	ADC56921	ADM87331	ADR18921	
7	4	Ŋ	ω	4	ω	Ŋ	ω	7	'n	v	7	7	7	ω	ω	ø	7	ω	œ	
298	445	445	445	464	575	627	627	646	685	685	685	685	685	685	685	745	745	867	1569	
83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	
35	35	35	35	35		35	35	35	35	35	35	35	35	35	35	35	35	35	35	
	27				31		33				37	38	39	40	41	42	43	44	45	

# ALIGNMENTS

AAU04530 standard; peptide; 7 AA VEGF based monocyclic peptide 8. (first entry) 26-SEP-2001 AAU04530

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

Synthetic

 .7 /note= "This bond cyclises the peptide" Location/Qualifiers Key Disulfide-bond WO200152875-A1

18-JAN-2001; 2001WO-US001533 26-JUL-2001

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

Stacker S, (LUDW-) LUDWIG INST CANCER RES Hughes RA, Achen MG,

Cendron A;

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

```
Cyclising the peptide by oxidising the cysteine residues. The monocyclic cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, convexication or lymphangiogenesis in a mammal with a condition characterised by anglogenesis, neovascularisation or lymphangiogenesis.

CC The condition is diabetic retinopathy, psoriasis, arthropathy, cc cheracterised by anglogenesis, neovascularisation or lymphangiogenesis.

CC The condition is diabetic retinopathy, psoriasis, arthropathy, cc cerebrovascular accident, post-angloplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive corporation in the peptides are also used to modulate vascular permeability infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to induced by VEGF, VEGF-C or pand are also used in combination with an anti-inflammatory agent, to treat a chaber in retinnary and bicyclic peptides are used to interfere control inflammatory agent, to treat a chaber in retinnary in a condition with an anti-inflammatory agent, to treat a chaber in retinnary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endopthelmitis; bone; joint; central nervous system; ELISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay; dermatological; osteopathic; neuroprotectant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 42; DB 4; Length 7; 100.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Propionibacterium acnes immunogenic protein #23458.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU62562 standard; protein; 50 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-APR-2000; 2000US-0199047P.
02-JUN-2000; 2000US-0208841P.
07-JUL-2000; 2000US-0216747P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-APR-2001; 2001WO-US012865.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Quet Local Similarity luv.v.
Best Local 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Propionibacterium acnes.
                                                                                                                                                                                                                                                                                                                                                                                              diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200181581-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU62562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
AAU62562
       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

Propionibacterium acnes polypeptides and nucleic acids useful for vaccinating against and diagnosing infections, especially useful for treating acne vulgaris.

Bhatia A;

Wang SS,

Persing DH, Mitcham JL, Wang S: e J, Zhang Y, Jen S, Carter D;

WPI; 2001-616774/71. N-PSDB; AAS59627.

L'maisonneuve J,

Skeiky YAW,

```
Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic polypeptides. The proteins and their associated DNA sequences are used in polypeptides. The proteins and diagnosis of medical conditions caused by a canes. The disorders include SAPHO syndrome (synovitis, acne, pustulosis, hypertosis and osteomyelitis), uveitis and endophthalmitis. Praces is also involved in infections of bone, joints and the central nervous system, however it is particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a partient comprises contacting a sample with a binding agent that binds to the proteins of the invention of activity of polypeptides may be used as antigens in the production of antibodies specific for P. acnes proteins. These antibodies can be used to downregulate expression and activity of P. acnes polypeptides and therefore treat P. acnes infections. The antibodies can be used to charge therefore treat P. acnes infections The antibodies and therefore treat P. acnes infections. The antibodies can be used as diagnostic agents for determining P. acnes presence, for example, by this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at the wipo.int/pub/published_pot_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New Propionibacterium acnes polypeptides and polynucleotides encoding the polypeptide, useful for diagnosing, preventing or treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to an isolated polynucleotide (ACF64435-ACF64733)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Maisonneuve JL;
Jones R, Carter D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Propionibacterium acnes predicted ORF-encoded polypeptide #23757.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Acne vulgaris; antiseborrhoeic; dermatological; antibacterial; immunostimulant; immune response; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90.5%; Score 38; DB 4; Length 50; 85.7%; Pred. No. 49; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Persing DH, Bhatia A, Lodes MJ, Benson DR,
Example 1; SEQ ID NO 23757; 1069pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; SEQ ID NO 23757; 1481pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABM59081 standard; protein; 50 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mitcham JL, Skeiky YAW, Persj
Zhang Y, Wang S, Jen S, Lodk
Barth B, Vallieve-Douglass J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-OCT-2002; 2002WO-US032727.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-OCT-2001; 2001US-00978825.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Propionibacterium acnes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-381789/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22 CAPLTSC 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ACF64556.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003033515-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 50 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABM59081;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABM59081
8X505050505050505050505050505050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
encoding a Propionibacterium acnes protein. The invention also relates to polypeptides encoded by the polynucleotides (ABM35624-ABM64536) and to immunogenic fragments of P. acnes polypeptides. The invention additionally encompasses expression vectors and host cells comprising a contraint on fusion proteins comprising a polypeptide of the invention; antibodies against polypeptides of the invention; an immune response specific for a P. acnes polypeptide and an isolated T cell population comprising T cells prepared to polypeptide and an isolated T cell population comprising P. acnes polypeptides, antibodies, fusion proteins, T cell populations, or antigen-presenting cells that express the polypeptide); a method and kit for detecting or determining the presence or absence of P. acnes in a patient. The P. acnes polypeptides, polymucleotides, antibodies, fusion proteins, T cell populations or antigen-presenting cells that express the proteins, T cell populations or antigen-presenting cells that express the proteins, T cell populations or antigen-presenting cells that express the proteins, T cell populations or antigen-presenting cells that express the proteins, T cell populations or antigen-presenting cells that express the proteins. The polymucleotides can also be used as probes or primers for nucleic acid hybridisation. The vaccine composition is useful for the stimulation of an immune response against P. acnes, or for treating acne, and the kit is useful for performing a diagnostic assay. The present sequence represents a polypeptide predicted to be encoded by an ORF (open reading frame) contained within the P. acnes polymucleotides of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; chromosome mapping; gene mapping; gene therapy; forensic;
food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 6; Length 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 38; DB 6
Pred. No. 49;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human diagnostic protein #13161.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABG13170 standard; protein; 74 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAR-2001; 2001WO-US008631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-MAR-2000; 2000US-00540217
23-AUG-2000; 2000US-00649167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-639362/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 CAPLTSC 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAS77357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 50 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG13170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
```

```
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed cerivity of is useful in gene therapy techniques to restore normal ectivity of (II) as useful in gene therapy techniques to restore normal conjugation in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic maino acid sequences of the invention. Note: The sequence data for this pattent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; imunosoppressive; antibaflammatory; antibacesrial; vulnerary; antipacesrial; vulnerary; antipacesrial; vulnerary; antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiinflammatory; antiallergic; antidiabetic; antiulcer; anticonvulsant; antifungal; antiparastic; cardiate; immune disorder; cardiovascular disorder; neurological disease; infection; nephrotropic; gene therapy; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90.5%; Score 38; DB 4; Length 74; 85.7%; Pred. No. 70; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human nervous system related polypeptide SEQ ID NO 4699.
                SEQ ID NO 43529; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABB16042 standard; protein; 64 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , 2000US-0189874P.
, 2000US-0190076P.
, 2000US-0198123P.
, 2000US-0205515P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0209467P.
2000US-0214886P.
2000US-0215135P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JAN-2001; 2001WO-US001334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 85.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 74 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200159063-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001.
                  Claim 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABB16042
ò
```

```
07-JUL-2000) 2000US-0216647P

11-JUL-2000) 2000US-0216880P

11-JUL-2000) 2000US-0217496P

14-JUL-2000) 2000US-0217496P

14-JUL-2000) 2000US-0217496P

14-JUL-2000) 2000US-0217496P

14-JUL-2000) 2000US-022513P

14-JUC-2000) 2000US-0225213P

14-JUC-2000) 2000US-0225214P

14-JUC-2000) 2000US-022514P

14-JUC-2000) 2000US-022514P

16-JUC-2000) 2000US-022514P

16-JUC-2000 2000US-022514P

16-JUC-2000 2000US-022514P

16-JUC-2000 2000US-023141P

16-JUC-2000 200US-023141P

16-JUC-2000 200US-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0235836P.
2000US-023637P.
2000US-023636P.
2000US-0236368P.
2000US-0236369.
2000US-0236370P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0237037P.
2000US-0237038P.
2000US-0237039P.
2000US-0237040P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0241785P.
2000US-0241786P.
2000US-0241787P.
2000US-0241808P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25. SEP-2000; 25. SEP-2000; 26. SEP-2000; 27. SEP-2000; 29. SEP-2000; 29. SEP-2000; 29. SEP-2000; 20. SEP-2000; 20
```

```
20-OCT-2000; 2000US-0241826P.
21-OCT-2000; 2000US-02441826P.
22-OCT-2000; 2000US-0246474P.
08-NOV-2000; 2000US-0246476P.
08-NOV-2000; 2000US-0246477P.
08-NOV-2000; 2000US-0246524P.
08-NOV-2000; 2000US-0246524P.
08-NOV-2000; 2000US-0246523P.
08-NOV-2000; 2000US-0246523P.
08-NOV-2000; 2000US-0246523P.
08-NOV-2000; 2000US-024653P.
08-NOV-2000; 2000US-024921P.
07-NOV-2000; 2000US-024921BP.
07-NOV-2000; 2000US-024929P.
07-NOV-2000; 2000US-024929P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0251990P.
2000US-0254097P.
2001US-0259678P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0251989P
20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OCT-2000; 20-OC
```

SM Ruben (HUMA-) HUMAN GENOME SCI INC Rosen CA, Barash SC,

WPI; 2001-541565/60. N-PSDB; ABA12368.

and/or treating nervous system cancers antigen polypeptides, nervous system Nucleic acids encoding 3224 human useful for preventing, diagnosing and metastases.

Claim 11; SEQ ID NO 4699; 1701pp + Sequence Listing; English.

The invention relates to novel genes (ABA11004-ABA21534) and proteins (ABB14678-ABB18001) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer and other cancers of the adrenal gland, bone, bone marrow,

```
ö
breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infections diseases such as viral, bacterial, fungal and parasitic infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New protein complexes comprising BTC and a second protein (e.g. mLOC243548, mDLK1 or mPACE4) useful for diagnosing, preventing or treating disorders such as diabetes mellitus, nephropathy, cardiovascular disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to an isolated protein complex having a first protein which is betacellulin (BTC) or its homologue, derivative or fragment, interacting with a second protein selected from mLOC243348, mDLK1, mPACE4, mBC032073(1598), mTHBS2, mFBLNS, mAX009011, mHRWT112, mWATN3, mX1D1, mTASP(459), mINPPEB, mTAKEDA008, UBB, mTREX1, mSGT and CAMLG, or homologue, derivative or fragment. A complex of the invention has antidiabetic, antilipemic, antiatreriosclerotic, nephrotropic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAKEDA002; BTC; betacellulin; antidiabetic; antilipemic; antiarteriosclerotic; nephrotropic; ophthalmological; cardiovascular; cytostatic; antiinflammatory; immunosuppressive; osteopathic; antiarthritic; neuroprotective; nootropic; gene therapy; diabetes mellitus; hyperlipemia; arteriosclerosis; nephropathy; retinopathy; cardiovascular disease; cancer; fibrosis; autoimmune disease; inflammatory disease; osteopathyiis; osteoporosis; Alzheimer's disease; neurodegenerative disorder; cell proliferative disorder.
                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murine TAKEDA002 partial sequence/betacellulin antibody SEQ ID NO:50
                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                   Score 37; DB 4; Length 64;
Pred. No. 89;
                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; SEQ ID NO 50; 493pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADT49843 standard; protein; 273 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LB-MAR-2004; 2004WO-JP003699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-2003; 2003US-0456007P, 02-APR-2003; 2003US-0459944P.
                                                                                                                                                                                                                                                     Similarity 85.7%; 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TAKE ) TAKEDA CHEM IND LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Takeda S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2004-691021/67.
                                                                                                                                                                                                                                                                                                                                                                      28 CXPLTSC 34
                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                ^
                                                                                                                                                                                                                                                                                                                                1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2004083241-A2
                                                                                                                                                                                                                 Sequence 64 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sakamoto T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-SEP-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADT49843;
                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus
                                                                                                                                                                                                                                                                                                                                                                                                                            88888888888888888
                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New protein complexes comprising BTC and a second protein (e.g. mLOC243548, mDLK1 or mPACE4) useful for diagnosing, preventing or treating disorders such as diabetes mellitus, nephropathy, cardiovascular
ophthalmological, cardiovascular-gen., cytostatic, antiinflammatory, mumunosuppressive, osteopathic, antiarthritic, neuroprotective, and nay have a use in dene therapy. The composition and methods are useful for treating physiological disorders associated with diabetes mellitus, hyperlipemia, arteriosclerosis, nephropathy, retinopathy, cardiovascular disease, cancer, fibrosis, autoimnume disease, inflammatory disease, osteoarthritis, osteoporosis, Alzheimer's disease, neurodegenerative disorder or cell proliferative disorder. These may also be used for disquasing or preventing the disorders cited above, or for screening for agents that may be used to prevent or treat those disorders. The present sequence is used in the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiarteriosclerotic; nephrotropic; ophthalmological; cardiovascular; cytostatic; antiinflammatory; immunosuppressive; osteopathic; antiinflammatory; immunosuppressive; osteopathic; diabetes mellitus; hyperlipemia; arteriosclerosis; nephropathy; retinopathy; cardiovascular disease; cancer; fibrosis; autoimmune disease; inflammatory disease; osteoarthritis; osteoporosis; all of the cardiovascular disease; osteoarthritis; osteoporosis; antionimer's disease; inflammatory disease; osteoarthritis; osteoporosis; antionimer's disease; antionimer's dis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to an isolated protein complex having a first protein which is betacellulin (BTC) or its homologue, derivative or fragment, interacting with a second protein selected from mLOC243548, mDLK1, mPACE4, mBC032073(1598), mTHBS2, mFBLNS, mAK009011, mHRWT1L2, mMATN3, mNID1, mTASP(459), mINPPSB, mTAKEDA008, UBB, mTREX1, mSGT and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murine TAKEDA002 partial sequence/betacellulin antibody SEQ ID NO:51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 37; DB 8; Length 273; Pred. No. 3.2e+02; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAKEDA002; BTC; betacellulin; antidiabetic; antilipemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; SEQ ID NO 51; 493pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADT49844 standard; protein; 371 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-2003; 2003US-0456007P. 02-APR-2003; 2003US-0459944P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-MAR-2004; 2004WO-JP003699.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell proliferative disorder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TAKE ) TAKEDA CHEM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-DEC-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-691021/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57 CVPLASC
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 273 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2004083241-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sakamoto T,
                                                                                                                                                                                                                                                                                                                                                                      invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADT49844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADT49844
          8888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

mULK1, mPACE4, mEC032073(1598), mINTBS2, mPELNS, mAK009011, mFRMTL12, mACM13, mND1, mTASP(459), mINTBS2, mPELNS, mAK009011, mFRMTL12, mACM13, mND1, mTASP(459), mINTBS2, mFELNS, mAK009011, mFRMTL12, mACM13, or homologue, derivative or fragment. A complex of the invention has antidiabetic, antilipemic, antiatteriosclerotic, nephrotropic, ophthalmological, cardiovascular-gen, cytostatic, antiinflammatory, immunosuppressive, osteopethic, antiatteriosclerosic, neuroprotective, and contropic activity, and may have a use in gene therapy. The composition and methods are useful for treating physiological disorders associated with diabetes mellitus, hyperlipemia, arteriosclerosis, nephropathy, cardiovascular disease, cancer, fibrosis, autoimmune disease, inflammatory disease, osteoarthritis, osteoporosis, Alzheimer's disease, neurodegenerative disorder or cell proliferative disorder. These may also be used for diagnosing or preventing the disorders cited above, or for screening for agents that may be used to prevent those disorders. The present sequence is used in the exemplification of the

88888888888888888888888888

fragment, interacting with a second protein selected from mLOC243548

ö

Gaps

ö

1; Indels Length 378;

Score 37; DB 8; ]
Pred. No. 4.3e+02;
0; Mismatches 1

88.1%;

Query Match Best Local Similarity

Sequence 378 AA;

invention

6; Conservative

Matches

1 CVPLTSC 7

ò

```
.;
0
                    has antidiabletic, antilipenic, antiatteriosclerotic, nephrotropic, ophthalmological, cardiovascular-gen., cytostatic, antinflammatory, mannosuppressive, osteopathic, antiattritic, neuroprocective, and noctropic activity, and may have a use in gene therapy. The composition and methods are useful for treating physiological disorders associated with diabetes mellitus, hyperlipenia, arteriosclerosis, nephropathy, retinopathy, cardiovascular disease, cancer, fibrosis, autoimmune disease, inflammatory disease, osteoarthritis, osteoprosis, Alzheimer's disease, neurodegenerative disorder or cell proliferative disorder. These may also be used for diagnosing or preventing the disorders cited above, or for screening for agents that may be used to prevent or treat those disorders. The present sequence is used in the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiarteriosclerotic; nephrotropic; ophthalmological; cardiovascular; cytostatic; antiinflammatory; immunosuppressive; osteopathic; antiarthritic; neuroprotective; nootropic; gene therapy; diabetes mellitus; hyperlipemia; arteriosclerosis; nephropathy; retinopathy; cardiovascular disease; cancer; fibrosis; autorimune disease; inflammatory disease; osteoarthritis; osteoporosis; Alzheimer's disease; neurodegenerative disorder;
   homologue, derivative or fragment. A complex of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 37; DB 8; Length 371;
Pred. No. 4.2e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BTC; betacellulin; antidiabetic; antilipemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Murine TAKEDA002 partial sequence SEQ ID NO:90.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADT49883 standard; protein; 378 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-MAR-2004; 2004WO-JP003699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-2003; 2003US-0456007P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88.1%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TAKE ) TAKEDA CHEM IND LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-DEC-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50 CVPLASC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 371 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2004083241-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-SEP-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAKEDA002;
                                                                                                                                                                                                                                                                                                                                                                                                                                             invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADT49883;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADT49883

ID ADT49883

XXX ADT4

XXX DDT 16-D

DT 16-D

XXX TAKE

XXX AUTO

$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
```

```
The invention relates to Enterococcus faecalis polynucleotides and bolypeptides. The invention also relates to a recombinant expression vector comprising a polynucleotide operably linked to a transcription regulatory element, a cell comprising a recombinant vector, a method for producing an E. faecalis polypeptide, an isolated nucleic acid comprising a sequence not given in the specification, a recombinant vector comprising the nucleic acid and a cell comprising the recombinant vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acid comprising a sequence encoding an Enterococcus fecalis polypeptide, useful for preparing a composition for diagnosing or treating E. fecalis infection.
                                                                                                                                                                                             Enterococcus faecalis infection; transcription regulatory element;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 6380; 193pp; English.
                                                                                                                                                               Enterococcus faecalis polypeptide #2975.
                                                                          ADH88495 standard; protein; 616 AA.
                                                                                                                                                                                                                                                                                                                              98US-00134000.
                                                                                                                                                                                                                                                                                                                                                           97US-0055778P.
                                                                                                                                                                                                                                                                                                                                                                                       (DOUC/) DOUCETTE-STAMM L A.
                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                      Bush
                                                                                                                                                                                                                                        Enterococcus faecalis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-895394/82.
 57 CVPLASC 63
                                                                                                                                                                                                                                                                                                                                                                                                                                    Doucette-Stamm LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ADH85090
                                                                                                                                                                                                                                                                                                                                                                                                       BUSH D.
                                                                                                                                                                                                              antibacterial.
                                                                                                                                                                                                                                                                                                                              13-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                           15-AUG-1997;
                                                                                                                                                                                                                                                                    US6617156-B1
                                                                                                                                   22-APR-2004
                                                                                                                                                                                                                                                                                                09-SEP-2003.
                                                                                                        ADH88495;
                                                                                                                                                                                                                                                                                                                                                                                                       (BUSH/)
                                             RESULT 9
                                                              ADH88495
g
```

New protein complexes comprising BTC and a second protein (e.g. mLOC243548, mDLK1 or mPACE4) useful for diagnosing, preventing or treating disorders such as diabetes mellitus, nephropathy, cardiovascular

2004-691021/67. Sakamoto T, Takeda

N-PSDB; ADT49908

The invention relates to an isolated protein complex having a first protein which is betacellulin (BTC) or its homologue, derivative or

Disclosure; SEQ ID NO 90; 493pp; English

disease or cancer.

```
Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic polypeptides. The proteins and their associated DNA sequences are used in the treatment, prevention and diagnosis of medical conditions caused by P. acnes. The disorders include SAPHO sydrome (synovitis, acne, pustulosis, hypertosis and osteomyelitis), uveitis and endophthalmitis. P. acnes is also involved in infections of bone, joints and the central nervous system, however it is particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a patient comprises contacting a sample with a binding agent that binds to the proteins of the invention and determining the amount of bound protein in the sample. The polypeptides may be used as antigens in the production of antibodies specific for P. acnes proteins. These antibodies can be used to compregulate expression and activity of P. acnes polypeptides and therefore treat P. acnes infections. The antibodies may also be used as therefore treat P. acnes infections. The antibodies may also be used as diagnostic agents for determining P. acnes presence, for example, by
                                                                                                                                                                                ö
The polynucleotides can be used to detect the presence of E. faecalis in a sample. The sequences are useful for preparing a composition for diagnosing or treating Enterococcus faecalis infection. This sequence represents an E. faecalis polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endophthalmitis; bone; joint; central nervous system; ELISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay;
                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Propionibacterium acnes polypeptides and nucleic acids useful for vaccinating against and diagnosing infections, especially useful
                                                                                                                                                                                ..
0
                                                                                                                                        Length 616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bhatia A;
                                                                                                                                        Score 37; DB 7; Length 616
Pred. No. 6.7e+02;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Propionibacterium acnes immunogenic protein #25135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wang SS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mitcham JL, Wang S., Jen S, Carter D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dermatological; osteopathic; neuroprotectant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; SEQ ID NO 25434; 1069pp; English
                                                                                                                                                                                                                                                                                                                                                           Ą
                                                                                                                                                                                                                                                                                                                                                       AAU64239 standard; protein; 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-APR-2000; 2000US-0199047P.
02-JUN-2000; 2000US-0208841P.
07-JUL-2000; 2000US-0216747P.
                                                                                                                                          88.1%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-APR-2001; 2001WO-US012865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Skeiky YAW, Persing DH, M
L'maisonneuve J, Zhang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Propionibacterium acnes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       treating acne vulgaris.
                                                                                                                                                                                                                                         |:|:||
507 CLPMTSC 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-616774/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CORI-) CORIXA CORP.
                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAS59641.
                                                                                                                                                                                                                   1 CVPLTSC
                                                                                                   Sequence 616 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200181581-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                    27-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                AAU64239;
                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                    RESULT 10
                                                                                                                                                                                                                                                                                                                                         AAU64239
    888888
                                                                                                                                                                                                                                                                                                                                                           유
```

```
The invention relates to an isolated polymucleotide (ACF64435-ACF64733)

concoding a Propionibacterium acnes protein. The invention also relates to polypeptides encoded by the polymucleotides (ABMS5624-ABM64536) and to immunogenic fragments of P. acnes polypeptides. The invention additionally encompasses expression vectors and host cells comprising a comprising a polypeptide of the invention, antibodies against polypeptides of the invention; and the invention and invention and the invention and invention an
                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polypeptide, useful for diagnosing, preventing or treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein.
  for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New Propionibacterium acnes polypeptides and polynucleotides encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ä
                                                                                                                                                                                                                       Gaps
enzyme linked immunosorbent assay (ELISA). Note: The sequence data f
this patent did not form part of the printed specification, but was
obtained in electronic format directly from WIPO at
ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maisonneuve JL;
Jones R, Carter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Propionibacterium acnes predicted ORF-encoded polypeptide #25434.
                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vulgaris; antiseborrhoeic; dermatological; antibacterial;
                                                                                                                                                                       Length 91;
                                                                                                                                                                     Score 36; DB 4; Length 91;
Pred. No. 1.8e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Persing DH, Bhatia A, Lodes MJ, Benson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; SEQ ID NO 25434; 1481pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunostimulant; immune response; vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                          ABM60758 standard; protein; 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhang Y, Wang S, Jen S, Lod
Barth B, Vallieve-Douglass J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-OCT-2002; 2002WO-US032727.
                                                                                                                                                                       85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-OCT-2001; 2001US-00978825.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Skeiky YAW,
ng S, Jen S,
                                                                                                                                                                                                                       6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Propionibacterium acnes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-381789/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                75 CVPRTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ACF64570.
                                                                                                                                                                                                                                                                     1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003033515-A1.
                                                                                                                       Sequence 91 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mitcham JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABM60758;
                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                        ABM60758
  88888
                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
The invention relates to isolated polymucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, ollgomers, and for chromosome and gene mapping, and in recombinant production of (II). The polymucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal cativity of (II) or to traat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food polypeptide in tissue, as molecular weight markers and as a food of sites expressing (II). (I) and (II) are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polymucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity
                                                                                                                                                                                                                                                                   .
                  stimulation of an immune response against P. acnes, or for treating acne, and the kit is useful for performing a diagnostic assay. The present sequence represents a polypeptide predicted to be encoded by an ORF (open reading frame) contained within the P. acnes polynucleotides of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
nucleic acid hybridisation. The vaccine composition is useful for the
                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                           Length 91;
                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                         85.7%; Score 36; DB 6; I
85.7%; Pred. No. 1.8e+02;
                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 20; SEQ ID NO 60562; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human diagnostic protein #30194.
                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG30203 standard; protein; 4561 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAR-2001; 2001WO-US008631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-00540217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2000; 2000US-00649167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                   6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-639362/73.
                                                                                                                                                                                                                                                                                                                                               75 CVPRTSC 81
                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                       7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                       1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAS94390
                                                                                                                                                                                   Sequence 91 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABG30203;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human;
                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                             ABG30203
                                                                                                                                                                                                                                                                                                                                                                                                                                                8888888888888
                                                                                                                                                                                                                                                                                                       à
```

```
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primeras, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed crivity of (II) so useful in gene therapy techniques to restore normal activity of (II) or to treat disease states involving (II). (II) is useful in some therapy techniques to restore normal activity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of supplement. (II) and its binding partners are useful for treating disorders (II) and partners are useful for treating disorders of olypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
                                                                                                                                                                                                                                   ;
0
and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                      85.7%; Score 36; DB 4; Length 4561; 71.4%; Pred. No. 5.7e+03; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 20; SEQ ID NO 51423; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel human diagnostic protein #21055.
                                                                                                                                                                                                                                                                                                                                                                                                                  ABG21064 standard; protein; 9222 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAR-2001; 2001WO-US008631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                2931 CVPISSC 2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-639362/73
                                                                                                                                                                                                       Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                       1 CVPLTSC 7
                                                                                                                                                 Sequence 4561 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAS85251.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200175067-A2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drmanac RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABG21064;
                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                 ABG21064
                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                              g
```

```
2000US-0230438P.
2000US-0231242P.
2000US-0231243P.
                                                                                                                                                                                                2000US-0232081P.
2000US-0231968P.
2000US-0232397P.
2000US-0232398P.
                                                                                                                                                                                                                                                                    2000US-0232400P.
2000US-0232401P.
2000US-0233063P.
2000US-0233064P.
                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0235836P.
2000US-0236327P.
2000US-0236367P.
2000US-0236368P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0236369P.
2000US-0236370P.
2000US-0236802P.
2000US-0237037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0237038P.
2000US-0237039P.
2000US-0237040P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0246526P.
2000US-0246527P.
2000US-0246528P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0249209P.
2000US-0249210P.
2000US-0249211P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0241809P.
2000US-0241826P.
2000US-0244617P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0246478P.
2000US-0246523P.
                                                                                                                                         2000US-0231244P.
2000US-0231413P.
                                                                                                                                                                      2000US-0231414P.
                                                                                                                                                                                                                                                                                                                             2000US-0233065P.
                                                                                                                                                                                                                                                                                                                                           2000US-0234223P.
2000US-0234274P.
                                                                                                                                                                                                                                                                                                                                                                      2000US-0234997P
                                                                                                                                                                                                                                                                                                                                                                                    000US-0234998P,
                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0235834P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0241221P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           000US-0241785P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0241786P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0241808P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0246474P.
2000US-0246475P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0000US-0246477P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0246524P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 000US-0246532P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           000US-0246611P.
                                                                                                                                                                                                                                                        2000US-0232399P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0239935P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0241787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0246525P
01-SEP-2000;
01-SEP-2000;
01-SEP-2000;
05-SEP-2000;
05-SEP-2000;
06-SEP-2000;
06-SEP-2000;
06-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
08-SEP-2000;
14-SEP-2000;
14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
01-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                 14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                          29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
                                                                                                                                                                                                                                                                    14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                             27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                          21-SEP-20
21-SEP-20
25-SEP-20
25-SEP-20
25-SEP-20
26-SEP-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-SEP-2
  6
                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                      Human; reproductive system related antigen; reproductive system disorder;
amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                             Gaps
                                                                                                                             .
0
                                                                                               Score 36; DB 4; Length 9222;
Pred. No. 1.1e+04;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                          Human reproductive system related antigen SEQ ID NO: 5223
                                                                                                                                                                                                                                                     AAM96565 standard; protein; 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JAN-2000; 2000US-0179065P.

24-FRB-2000; 2000US-0186464P.

22-FRB-2000; 2000US-0186464P.

25-FRB-2000; 2000US-0189364P.

16-FARR-2000; 2000US-0189374P.

17-FARR-2000; 2000US-019912P.

18-FRR-2000; 2000US-019912P.

19-FARR-2000; 2000US-0209467P.

28-JUN-2000; 2000US-021486P.

28-JUN-2000; 2000US-021664P.

28-JUN-2000; 2000US-021664P.

11-JUL-2000; 2000US-021664P.

11-JUL-2000; 2000US-021664P.

14-JUL-2000; 2000US-021664P.

14-JUC-2000; 2000US-021664P.

14-JUC-2000; 2000US-021664P.

14-JUC-2000; 2000US-0225214P.

14-JUC-2000; 2000US-0225266P.

14-JUC-2000; 2000US-0225266P.

14-JUC-2000; 2000US-0225266P.

14-JUC-2000; 2000US-022526FP.

14-JUC-2000; 2000US-022576P.

14-JUC-2000; 2000US-022576PP.

14-JUC-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0227182P.
2000US-0227009P.
2000US-0228924P.
                                                                                               Query Match 85.7%;
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JAN-2001; 2001WO-US001339
                                                                                                                                                                                                                                                                                                             21-NOV-2001 (first entry)
                                                                                                                                                                      3655 CVPISSC 3661
                                                                                                                                                                                                                                                                                                                                                                                    cancer; gene therapy
                                                                                                                                                      1 CVPLTSC 7
                                                                    Sequence 9222 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200155320-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-AUG-2000;
23-AUG-2000;
30-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-AUG-2001
                                                                                                                                                                                                                                                                                  AAM96565;
                                                                                                                                                                                                                           8888888
                                                                                                                                                        ઠે
                                                                                                                                                                             g
```

```
2000US-0189874P.
2000US-0190076P.
2000US-0205123P.
2000US-0205123P.
2000US-0214886P.
2000US-0214880P.
2000US-0217496P.
2000US-0217496P.
2000US-0217496P.
2000US-0217496P.
2000US-021829P.
2000US-0225213P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0225447P

2000US-0225447P

2000US-0225447P

2000US-0225759P

2000US-022568BP

2000US-02268BP

2000US-02268BP

2000US-02218BP

2000US-0229384P

2000US-0229344P

2000US-023934P

2000US-023934P

2000US-023934P

2000US-023144P

2000US-023208P

2000US-023208P

2000US-023298P

2000US-023298P

2000US-023298P

2000US-023398P

2000US-023398P

2000US-023398P
                                                                                                  17-JAN-2001; 2001WO-US001329
              WO200155317-A2
                                                                                                                                                                                                                                  16-MAR-2000;

17-MAR-2000;

18-MAR-2000;

19-MAY-2000;

20-JUN-2000;

30-JUN-2000;

07-JUL-2000;

11-JUL-2000;

11-JUL-2000;

26-JUL-2000;

26-JUL-2000;

26-JUL-2000;

26-JUL-2000;

14-AUG-2000;

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-AUG-2000; 22-AUG-2000; 22-AUG-2000; 22-AUG-2000; 22-AUG-2000; 23-AUG-2000; 23-AUG-2000; 20-AUG-2000; 20-AU
           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isolated nucleic acid molecule encoding a reproductive system antigen is used in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention provides the protein and coding sequences of a number of human reproductive system related antigens. These can be used in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; testicular antigen; testes; cancer; metastasis; immune disorder; reproductive system disorder, urinary system disorder; gene therapy; cardiovascular disorder; respiratory disorder; neurological disorder; gastrointestinal disease; infection; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 11; SEQ ID NO 5223; 1297pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.3%; Score 35; DB 4; Length 61;
85.7%; Pred. No. 1.8e+02;
ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human testicular antigen SEQ ID NO: 1953.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB96569 standard; protein; 61 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barash SC, Ruben SM;
17-NOV-2000; 2000US-0249212P.
17-NOV-2000; 2000US-0249213P.
17-NOV-2000; 2000US-0249215P.
17-NOV-2000; 2000US-0249215P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-024924P.
17-NOV-2000; 2000US-024924P.
17-NOV-2000; 2000US-024924P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-0249269P.
17-NOV-2000; 2000US-024926P.
17-NOV-2000; 2000US-0249300P.
17-NOV-2000; 2000US-025198P.
0S-DEC-2000; 2000US-025198P.
0S-DEC-2000; 2000US-025198P.
0S-DEC-2000; 2000US-0251866P.
0S-DEC-2000; 2000US-0251869P.
0S-DEC-2000; 2000US-0251869P.
0S-DEC-2000; 2000US-0251869P.
0S-DEC-2000; 2000US-0251869P.
0S-DAN-2001; 2000US-0251989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-465570/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CVPLGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAL02535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABB96569;
```

2000US-0235484P. 2000US-0235834P. 2000US-0235836P.

26-SEP-2000; 27-SEP-2000; 27-SEP-2000;

Homo sapiens

a

2000US-0234274P.

```
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-0249297P.
17-NOV-2000; 2000US-0249299P.
17-NOV-2000; 2000US-0249299P.
17-NOV-2000; 2000US-0249300P.
01-DEC-2000; 2000US-0250391P.
05-DEC-2000; 2000US-0251988P.
05-DEC-2000; 2000US-025198P.
06-DEC-2000; 2000US-025198P.
06-DEC-2000; 2000US-025186P.
08-DEC-2000; 2000US-025186P.
08-DEC-2000; 2000US-025186P.
                                                                                               2000US - 0236802P

2000US - 0237037P

2000US - 0237039P

2000US - 0239937P

2000US - 0239937P

2000US - 0240960P

2000US - 0241786P

2000US - 0241786P

2000US - 0241786P

2000US - 0241787P

2000US - 0241809P

2000US - 0241809P

2000US - 0246474P

2000US - 0246478P

2000US - 0246211P

2000US - 0249211P

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0251990P
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
20-CT-2000;
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-2000;
    X
```

(HUMA-) HUMAN GENOME SCI INC

Barash SC, Ruben SM; Rosen CA,

```
The present invention provides the protein and coding sequences of 973 human testicular antigens, and fragments of their genomic sequences. The sequences can be used in the treatment of cardiovascular, urinary system, reproductive system, immune, respiratory, neurological and gastrointestinal disorders, infections, and particularly cancer, especially testicular cancers. The present sequence is a protein of the
                                                 Nucleic acids encoding 973 human testicular antigen polypeptides, useful for preventing, diagnosing and/or treating testicular cancer.
                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                  Score 35; DB 4; Length 61;
Pred. No. 1.8e+02;
0; Mismatches 1; Indels
                                                                                                     Claim 11; SEQ ID NO 1953; 766pp; English
                                                                                                                                                                                                                                                                                                                83.3%;
                                                                                                                                                                                                                                                                                                                                                         6; Conservative
                WPI; 2001-483232/52.
                                                                                                                                                                                                                                                                                                                                                                                                                40 CVPLGSC 46
                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                          1 CVPLTSC 7
                                                                                                                                                                                                                                                                                   Sequence 61 AA;
                                                                                                                                                                                                                                                invention
셤
                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

ö

Gaps

Search completed: April 1, 2005, 09:18:20 Job time : 54.8356 secs

THIS PAGE BLANK (USPTO)

•

Sequence 4 Sequence 1

sequence 12, Appli Sequence 12, Appli Sequence 116, Appli Sequence 12, Appli Sequence 12, Appli Sequence 123, Appli Sequence 20056, Appli Sequence 2066, Appli Sequence 20, Appli Sequence 4, Appli Sequence 1116, Appli Se

us-09-761-636a-11.open.rapb

Run on:

```
Sequence 11, Application US/09761636A

Facent No. US20020065218A1

GENERAL INCORNATION:
APPLICANT: ACHEN, Marc

APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT APPLICATION NUMBER: US 60/176,293

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR PILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-16

NUMBER OF SEQ ID NOS: 34

SOFTWARE: PATENTI ON SEC ID NOS: 34

SOFTWARE: PATENTI ON SEC ID NOS: 34

SEQ ID NO: 12
6 US-10-120-018-17
6 US-10-451-417-4
4 US-10-120-018-12
4 US-10-120-018-12
5 US-10-108-260A-3546
5 US-10-263-929-116
6 US-10-475-446-12
6 US-10-475-446-12
6 US-10-475-446-12
6 US-10-12-944-465
5 US-10-112-944-465
5 US-10-112-944-465
5 US-10-112-944-465
5 US-10-112-944-465
5 US-10-112-944-465
5 US-10-112-944-956
5 US-10-112-944-956
5 US-10-107-782-4
5 US-10-107-782-4
5 US-10-107-782-4
5 US-10-107-782-8
6 US-10-107-782-8
7 US-10-107-315-977-8828
7 US-10-0335-977-8828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 42; DB 9; L
100.0%; Pred. No. 1.3e+06;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
      7; Conservative
                                                                                                                                               109
221
351
1653
2420
2675
2675
5405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-761-636A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 7; Conserv
   1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
US-10-424-599-248060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-11
    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11, Appl
Sequence 248060,
Sequence 19968,
Sequence 18478,
Sequence 3611, Ap
Sequence 3611, Ap
Sequence 1832, Ap
Sequence 48, Appl
Sequence 48, Appl
Sequence 1835, Ap
Sequence 1835, Ap
Sequence 1835, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                   April 1, 2005, 09:26:18 ; Search time 172.027 Seconds (without alignments) 13.493 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.ppp:*
| Cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
| Cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
                GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-424-599-248060
US-10-424-599-199668
US-10-437-961-118478
US-09-764-891-5223
US-09-764-891-5223
US-10-120-018-5
US-10-091-458-48
US-10-191-254-48
US-10-120-018-5
US-10-101-254-48
US-10-101-254-48
US-10-101-254-48
US-10-101-254-48
US-10-101-254-48
US-10-101-254-48
                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-11
                                                                                                                                                                                                                                                                 1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                Published Applications AA:*
                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                          OM protein - protein search, using sw model
                                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                             US-09-761-636A-11
42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1118
253
75
61
61
65
270
270
270
4462
462
                                                                                                                                                                                          1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23233333423
232323232423
22232232323
                                                                                                                                                                                              Seguence:
                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                Database
```

ö

Gaps

ö

Result Š Length 7; Indels

```
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(5321)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 118478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (58)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: SITE

1 LOCATION: (60)

2 OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-891-5223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Rosen et al.
TITLE DOF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REPERBYCE: PC006
CURRENT APPLICATION NUMBER: US/09/764,891
CURRENT FILING DATE: 2001-01-17
Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 10231
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5223
LENGTH: 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REFERENCE: PCOOR CURRENT APPLICATION NUMBER: US/09/764,891
CURRENT APPLICATION AUMBER: 2001-01-17
Prior application date removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 10231
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 35; DB 10; Length 61;
Pred. No. 79;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 85.7%; Score 36; DB 16; Length 75; Best Local Similarity 71.4%; Pred. No. 64; Matches 5; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Clone ID: PAT_MRT4530_21786C.1.pep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5223, Application US/09764891
Publication No. US20030077808A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-764-891-3611
Sequence 3611, Application US/09764891
Publication No. US20030077808A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83.3%;
85.7%;
                    Barbazuk, Brad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
6; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53 СТРІТНС 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40 CVPLGSC 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-437-963-118478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-764-891-5223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                         APPLICANT: Kovalic David K
APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE OF INVENITION: Soy Nucleic Acid Molecules Associated With
TITLE ASSOCIATED AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 199668, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Low vide K
APPLICANT: Thou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21 (53223) B
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 199668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37; DB 15; Length 253;
Pred. No. 1.3e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90.5%; Score 38; DB 15; Length 118; 85.7%; Pred. No. 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Clone ID: PAT_MRT3847_66028C.1.pep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: Clone ID: PAT_MRT3847_22324C.1.pep
US-10-424-599-199668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 118478, Application US/10437963
Publication No. US20040123343A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
APPLICANT: Wu, Wei
APPLICANT: Boukharov, Andrey A.
Sequence 248060, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 85.7
Matches 6, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 85.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109 CVPLASC 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29 CTPLTSC 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-10-424-599-199668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-424-599-248060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-437-963-118478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
US-10-091-458-48
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY: SITE
LOCATION: (113)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (118)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
LOCATION: (157)
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5, Application US/10120018
Publication No. US20030194708A1
GENERAL INFORMATION:
APPLICANT: Binnerts et al
APPLICANT: Binnerts et al
TITLE OF INVENTION: Human Homolog of Crossveinless Materials and Methods
FILE REPERENCE: 28110/37995
CURRENT APPLICATION NUMBER: US/10/120,018
CURRENT FILING DATE: 2002-04-10
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin Version 3.0
SEQ ID NO 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                             Gaps
                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83.3%; Score 35; DB 14; Length 196;
57.1%; Pred. No. 2.3e+02;
iive 3; Mismatches 0; Indels
                                                                                                                                             83.3%; Score 35; DB 10; Length 65; 71.4%; Pred. No. 83; ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8

US-09-833-245-1832

Sequence 1832, Application US/09833245

Publication No. US20040010134A1

GENERAL INFORMATION:
APPLICANT: Human Genome Sciences, Inc.
TILLE OF INVENTION: Albumin Fusion Proteins
FILE REPERENCE: PFS46FCT
CURRENT PEPLICATION NUMBER: US/09/833,245

CURRENT FILING DATE: 2001-04-12

PRIOR APPLICATION NUMBER: 60/229, 358

PRIOR FILING DATE: 2000-04-12

PRIOR PILING DATE: 2000-12-21

PRIOR FILING DATE: 2000-12-21

PRIOR FILING DATE: 2000-12-21

PRIOR FILING DATE: 2000-12-31

PRIOR PILING DATE: 2000-04-25

NUMBER OF SEQ ID NOS: 2267

SEQ ID NO 1832
                                                                                                                                          Query Match 83.3
Best Local Similarity 71.4
Matches 5, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 83.3
Best Local Similarity 57.1
Matches 4; Conservative
; SEQ ID NO 3611
; LENGTH: 65
; TYPE: PRT
; CRGANISM: Homo sapiens
US-09-764-891-3611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                 |:||:||
41 CLPLSSC 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |:|::||
50 CIPISSC 56
                                                                                                                                                                                                                                       1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 196
                                                                                                                                                                                                                                                                                                                                                                                 US-10-120-018-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-120-018-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
```

ť		
NUMBER: 60/220,964 2000-07-26 NUMBER: 60/241,809 2000-10-20 NUMBER: 60/249,29 2000-11-17 2000-09-29 NUMBER: 60/241,785 2000-10-20 NUMBER: 60/244,617 2000-11-01 NUMBER: 60/244,617	20.09-29 20.09-29 20.12-08 20.12-08 20.12-08 20.12-08 20.13-19-09-29 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-20 20.20-	10-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20 110-20
APPLICATION FILING DATE: APPLICATION FILING DATE: APPLICATION FILING DATE: APPLICATION APPLICATION FILING DATE: APPLICATION FILING DATE:	APPLICATION FILING DATE	APPLICATION PELING DATE APPLICATION PELING DATE FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE FILING DATE APPLICATION FILING DATE
PRIOR	PRIOR	PRICOR PR

PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-16
PRIOR PLING DATE: 2000-08-16
PRIOR PLING DATE: 2000-08-16
PRIOR PLING DATE: 2000-08-16
PRIOR PLING DATE: 2000-08-17
PRIOR PELICATION NUMBER: 60/215,135
PRIOR PELICATION NUMBER: 60/249,218
PRIOR PELICATION NUMBER: 60/249,219
PRIOR PELICATION NUMBER: 60/230,619
PRIOR P

```
Sequence 1835, Application US/09833245
Publication No. US20040010134A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LENGTH: 462
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-120-018-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:|::||
336 CIPISSC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-120-018-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc feature
LOCATION: (113)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (118) OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (157)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-10-191-254-48
                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ROSEN et al.

TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REPERENCE: Pr206.2

CURRENT APPLICATION NUMBER: US/10/191,254

CURRENT FILING DATE: 2002-08-27

CURRENT FILING DATE: 2000-08-17

PRIOR PELING DATE: 2000-01-17

PRIOR APPLICATION NUMBER: 09/764,900

PRIOR APPLICATION NUMBER: 09/764,900

PRIOR APPLICATION NUMBER: 60/179,065

PRIOR PILING DATE: 2000-01-31

PRIOR PILING DATE: 2000-01-31

PRIOR PILING DATE: 2000-02-04

PRIOR PILING DATE: 2000-02-04

PRIOR PILING DATE: 2000-02-04

PRIOR PILING DATE: 2000-05-11

PRIOR PILING DATE: 2000-06-14

PRIOR PILING DATE: 2000-06-14

PRIOR PILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 60/225,758

PRIOR APPLICATION NUMBER: 60/225,758

PRIOR PILING DATE: 2000-07-11

                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.3%; Score 35; DB 15; Length 270;
57.1%; Pred. No. 3e+02;
ive 3; Mismatches 0; Indels
                                  0; Indels
Best Local Similarity 57.1%; Pred. No. 3e+02; Matches 4; Conservative 3; Mismatches
                                                                                                                                                                                                                                                                                             Sequence 48, Application US/10191254 Publication No. US20040005650A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 83.3
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc feature LOCATION: (118)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc feature LOCATION: (268)
                                                                                                                            |:|::||
161 CIPISSC 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |:|::||
161 CIPISSC 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVPLTSC 7
                                                                                          1 CVPLTSC 7
                                                                                                                                                                                                                                                                       US-10-191-254-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 48
LENGTH: 270
                                                                                          ð
                                                                                                                                        g
```

RESULT 11

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (288)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids NAME/KRY: SITE
LOCATION: (293)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
PEATURE:
NAME/KEY: SITE
LOCATION: (147)
OGTHER INPORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (332)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOCATION: (443)
COTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-833-245-1835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 16. Application US/10120018
Sequence 16. Application US/10120018
Publication No. US20030194708A1
GENERAL INFORMATION:
APPLICANT: Binnerts et al
TITLE OF INVENTION: Human Homolog of Crossveinless Materials and Methods
FILE REFERENCE: 28110/37995
CURRENT APPLICATION NUMBER: US/10/120,018
CURRENT FILING DATE: 2002-04-10
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin version 3.0
SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 35; DB 14; Length 462;
Pred. No. 4.9e+02;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 57.1%; Pred. No. 4.8e+02;
Matches 4; Conservative 3; Mismatches 0; Indels
GENERAL INFORMATION.
APPLICANT: Human Genome Sciences, Inc.
TITLE OF INVENTION: Abbumin Fusion Proteins
FILE REFERENCE: PF546PCT
CURRENT APPLICATION NUMBER: US/09/833,245
CURRENT FILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: 60/229, 358
PRIOR PILING DATE: 2000-04-12
PRIOR PILING DATE: 2000-012-31
PRIOR RILING DATE: 2000-12-31
PRIOR APPLICATION NUMBER: 60/199, 384
PRIOR PILING DATE: 2000-04-25
NUMBER OF SEQ ID NOS: 2267
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 1835
LENGTH: 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         113 CVPVSSC 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

```
Search completed: April 1, 2005, 10:36:34 Job time: 172.027 secs
                                                                                                                                      83.3%;
57.1%;
                                                                                                                                 Query Match
Best Local Similarity 57.1:
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-451-417-4
                                                                                                                                                                                                                                                                     355 CIPISSC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     336 CIPISSC 342
                                                                                                                                                                                                                                        1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CVPLTSC 7
                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-10-451-417-4
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
US-10-120-018-17
Sequence 17. Application US/10120018
Fublication No. US20030194708A1
GENERAL INFORMATION:
TITLE OF INVENTION: Human Homolog of Crossveinless Materials and Methods
FILE REFERENCE: 28110/37995
CURRENT APPLICATION NUMBER: US/10/120,018
CURRENT PAPLICATION NUMBER: US/10/120,018
CURRENT PAPLICATION NUMBER: 202-04-10
NUMBER OF SEQ ID NOS: 1
SOFTWARE: Patentin version 3.0
SEQ ID NO 17
LENGTH: 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                       APPLICANT: Alsobrook et al.

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same FILE REPERBENCE: 21402-218

CURRENT APPLICATION WINDER: US/10/016,248

CURRENT FILING DATE: 2002-09-20

FRIOR PELION NUMBER: 60/254,329

PRIOR FILING DATE: 2000-12-08

PRIOR FILING DATE: 2000-12-14

PRIOR APPLICATION NUMBER: 60/255,648

PRIOR APPLICATION NUMBER: 60/255,648

PRIOR APPLICATION NUMBER: 60/255,648

PRIOR FILING DATE: 2000-12-14

PRIOR FILING DATE: 2001-06-08

PRIOR FILING DATE: 2001-06-08

PRIOR PLING DATE: 2001-07-31

PRIOR PLING DATE: 2001-07-31

PRIOR PLING DATE: 2001-07-31

PRIOR PLING DATE: 2001-10-01

PRIOR FILING DATE: 2001-10-01

PRIOR PLING DATE: 2001-10-01

PRIOR FILING DATE: 2001-10-01

PRIOR FILING DATE: 2001-0-0-3

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83.3%; Score 35; DB 15; Length 462; 71.4%; Pred. No. 4.9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY: MISC FEATURE
LOCATION: (307)...(307)
OTHER INFORMATION: wherein "X" is unknown or other
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: MISC FEATURE
LOCATION: (312)...(312)
LOCATION: wherein "X" is unknown or other
FEATURE: NAME/KEY: MISC_FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: MISC FEATURE
LOCATION: (166)..(166)
OTHER INFORMATION: wherein "X" is unknown or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Mismatches
                       Sequence 58, Application US/10016248
Publication No. US20040033491A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Mus musculus
US-10-016-248-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113 CVPVSSC 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CVPLTSC 7
US-10-016-248-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                        ö
                                                                                                                                                                                          Length 464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83.3%; Score 35; DB 16; Length 627; larity 57.1%; Pred. No. 6.5e+02; Conservative 3; Mismatches 0; Indels
                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/10451417
Publication No. US20040110921A1
GENERAL INFORMATION:
APPLICANT: ORITA, Satoshi et al
TITLE OF INVENTION:
FILE REFERENCE: 0032-0276P
CURRENT APPLICATION NUMBER: US/10/451,417
CURRENT FILING DATE: 2003-06-23
PRIOR APPLICATION NUMBER: UF 401584/2000
PRIOR APPLICATION NUMBER: JP 401584/2000
PRIOR FILING DATE: 2000-12-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 4
LENGTH: 627
LOCATION: (351)..(351)
OTHER INFORMATION: wherein "X" is unknown or other
                                       FEATURE:
NAME/KEY: MISC FEATURE
COTATION: (462)
CTHER INFORMATION: wherein "X" is unknown or other
US-10-120-018-17
                                                                                                                                                                                     Score 35; DB 14;
Pred. No. 4.9e+02;
3; Mismatches 0
```

Appli , Appl

```
26927, A
8069, Ap
8, Appli
                                                                                                                                              9, Appli
24, Appl
13837, A
18128, A
                                                                                                                                                                                               30882, A
9, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                       Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                          Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                       Sequence
Sequence
                                                                                                                                                                                                              Sequence
                                                                                                                                                          Sequence
                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 86.0%; Score 43; DB 3; Length 1487; Best Local Similarity 77.8%; Pred. No. 43; Matches 7; Conservative 1; Mismatches 1; Indels
                    US-09-949-016-8315-
US-09-449-016-8315-
US-09-469-186-1
US-09-469-188-1
US-09-849-188-1
US-09-847-24-6
US-09-843-246B-20
US-09-929-016-8069
US-09-431-888-8
US-09-431-888-8
US-09-431-888-8
US-09-489-039-13837
US-09-489-039A-13837
US-09-252-991A-13828
US-09-252-991A-13828
US-08-252-991A-13828
US-08-252-991A-13828
          -09-949-016-10448
-09-949-016-8315
09-949-016-6806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Wintpatin (Genentech)
CURRENT APPLICATION DATE:
APPLICATION NUMBER: US/08/840,062
                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                             APPLICANT: LASKY, LAURENCE A.
APPLICANT: WU, KAI
TITLE OF INVENTION: TYPE C LECTINS
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33,055
PR: P1019R1
                                                                                                                                                                                                                                                                                            'Sequence 7, Application US/08840062; Sequence 7, Application US/08840062; Patent No. 6117977; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Dreger, Ginger R.
REGISTRATION NUMBER: 33,055
REPERSOR/OF/CET UNBER: P101
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/252-384
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1487 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CSVPLPSIC 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  roPoloGY: Linear
94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-840-062-7
929
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7, Appli
Sequence 10842, A
Sequence 31856, A
Sequence 51364, A
Sequence 1, Appli
Sequence 1, Appli
Sequence 50263, A
Sequence 61436, A
Sequence 4, Appli
Sequence 4725, Ap
Sequence 4725, Ap
Sequence 4725, Ap
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 10347, Ap
Sequence 10347, Ap
Sequence 10347, Ap
Sequence 10347, Appli
Sequence 10347, Appli
Sequence 51, Appli
                                                                              April 1, 2005, 07:04:23 ; Search time 19.9726 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4
Sequence 4
Sequence 6
                                                                                                                                                                                                                                                                                                                                                                       /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
           GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -09-543-681A-4919
-09-543-681A-6083
                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                     513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                         OM protein - protein search, using sw model
                                                                                                                                                                                             Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                            Issued_Patents_AA:*
                                                                                                                                US-09-761-636A-10
50
1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                      Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                        1 2 6 4 3 9
                                                                                                                                                Perfect score:
                                                                                                                                                                                  Scoring table:
                                                                                                                                                           Sequence:
                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                            Database
```

Result

```
Query Match
              ; FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
                                                                                                                                                                    ઠે
                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
US-09-489-039A-10842

Sequence 10842, Application US/09489039A

Sequence 10842, Application US/09489039A

Parent No. 6610836

GENERAL INFORMATION:
TITLE OF INVENTION: WUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US/09/489,039A

CURRENT APPLICATION NUMBER: US 60/117,747

PRIOR PILING DATE: 1999-01-29
                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
US-09-270-767-38568
Sequence 38568, Application US/09270767
Sequence 38568, Application US/09270767
GENERAL INFORMATION:
TITULE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster:
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 38568
LENGTH: 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WB-09-270-767-53785

Sequence 53785, Application US/09270767

Parent No. 6703491

GENERAL INFORMATION: Nucleic acids and proteins of Drosophila melanogaster TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REPRENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

NUMBER OF SEQ ID NOS: 62577

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 53785

LENGTH: 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                        82.0%; Score 41; DB 4; Length 422; 100.0%; Pred. No. 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 37; DB 4; Length 259;
Pred. No. 76;
                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Indels
                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Prea. .v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Xaa means any amino acid US-09-270-767-38568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74.0%;
                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 10842
LENGTH: 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 55.0
---- 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                107 ĊŚIPĽVEĽĆ 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387 SVPLTSVC 394
                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 SVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                  US-09-489-039A-10842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
Squence 20154, Application US/09252991A

Patent No. 651795

GENERAL INFORMATION:

APPLICANT: Marc J Rubenfield et al.

APPLICANT: Marc J Rubenfield et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;

TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

FILE REPRENDE: 10796,136

CURRENT APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

LENGTH: 168
                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                         ö
                                                              4; Length 259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         72.0%; Score 36; DB 4; Length 168; 66.7%; Pred. No. 72;
                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1. Application US/08688342
Patent No. 5871964
GENERAL INFORMATION:
PAPLICANT: AU-Young, Janice
APPLICANT: Goli, Surya K.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOVEL HUMAN C-TYPE LECTIN
NUMBER OF SEQUENCES:
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
                                                            Score 37; DB 4
Pred. No. 76;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 3174 Porter Drive CITY: Palo Alto STATE: CA COUNTRY: ITC
; OTHER INFORMATION: Xaa means any amino acid
US-09-270-767-53785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/688,342
FILING DATE: Filed Herewith
ATTORNEY/AGENT INFORMATION:
NAMME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
                                                          74.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                        Query Match
Best Local Similarity 55.6
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Conservative
                                                                                                                                                                     107 CSIPLVELC 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104 CSVPATCTC 112
                                                                                                                                              1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                US-09-252-991A-20364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-252-991A-20364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-688-342-1
```

ö

us-09-761-636a-10.open.rai

```
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REPERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: 05/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 35046
LENGTH: 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 50263
LENGTH: 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                          Gaps
                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 35; DB 4; Length 186; Pred. No. 1.2e+02;
  DB 2; Length 201;
86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70.0%; Score 35; DB 4; Length 186; 44.4%; Pred. No. 1.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
Score 36; DB 2
Pred. No. 86;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: Xaa means any amino acid US-09-270-767-35046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Xaa means any amino acid US-09-270-767-50263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Mismatches
                                                                                                                                                                                            US-09-270-767-35046
; Sequence 35046, Application US/09270767
; Patent No. 6703491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-270-767-50263
; Sequence 50263, Application US/09270767
; Patent No. 6703491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    % Sequence 4, Application US/08586165 parent No. 6054298 GENERAL INFORMATION: APPLICANT: Laufer, Edward M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Drosophila melanogaster
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 44.4.
  Query Match 72.0
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 70.0
Best Local Similarity 44.4
Matches 4; Conservative
                                                                                                                 187 CSVPSYSIC 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 CNIPLSQLC 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 CNIPLSQLC 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CSVPLTSVC 9
                                                                            1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                             Score 36; DB 2; Length 201;
Pred. No. 86;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1, Application US/09113788
Patent No. 5969104
GENERAL INFORMATION:
APPLICANT: AL-Young, Janice
APPLICANT: Golf, Benjamin G.
APPLICANT: Golf, Surja K.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOVEL HUMAN C-TYPE LECTIN
NUMBER OF SEQUENCES:
CORRESONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
  REFERENCE/DOCKET NUMBER: PF-0095-1 CIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PF-0095-1 CIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/113,788 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/688,342
FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Billings, Lucy J. REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                    TELEFAX: 415-845-4166
INFORMATION FOR SEQ.ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 201 amino acids
TYPE: amino acid
STRANDEDNESS: single
                  TELECOMMUNICATION INFORMATION TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Incyte Pharmace
STREET: 3174 Porter Drive
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPX: 415-645-4166
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 201 amino acids
                                                                                                                                                                                                                                                                                           TOPOLOGY: linear

MOLECULE TYPE: peptide

IMMEDIATE SOURCE:

LIBRARY: MMLR1DT01

CLONR: $15847
US-09-113-788-1
                                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: peptide
IMMEDIATE SOURCE:
LIBRARY: MMLRIDT01
CLONE: $15847
                                                                                                                                                                                                                                                                                                                                                                                                                              187 ČŠVPSYŠIČ 195
                                                                                                                                                                                                                                                                                                                                                                                        1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-113-788-1
```

ò 임 ö

ö

```
NAME/KEY: UNSURE
LOCATION: 44
COTHER INFORMATION: Xaa = Cys,Trp
NAME/KEY: UNSURE
LOCATION: 47
OTHER INFORMATION: Xaa = Gly,Arg
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: UNSURE
LOCATION: 49,51
OTHER INFORMATION: Xaa = Ala,Gly
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 45
COTHER INFORMATION: Xaa = Phe, Leu
US-09-621-976-4725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 53
OTHER INFORMATION: Xaa = Lys, Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68.0%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 55.67
Local 5, Conservative
          40 CSVPILWIC 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Xaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 CDVPLYDIC 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: UNSURE
LOCATION: 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 61436, Application US/09270767
Patent No. 6703491
GENERAL INFORMATION
GENERAL INFORMATION
APPLICANT: Homburger et al.
TILLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REPRENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT APPLICATION NUMBER: US/09/270,767
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 61436
LENGTH: 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
APPLICANT: Orozco, Olivia E.
APPLICANT: Tabin, Clifford J.
TITLE OF INVENTION: Fringe Proteins and Pattern Formation NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS: ADDRESSE: Hamilton, Brook, Smith & Reynolds, P.C. STREET: Two Militia Drive CITY: Lexington
STREET: Massachusetts
STRIE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70.0%; Score 35; DB 3; Length 359; 44.4%; Pred. No. 2.3e+02; tive 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68.0%; Score 34; DB 4; Length 49; illarity 55.6%; Pred. No. 45; Conservative 2; Mismatches 2; Indels
                                                                                                                                                                                                    COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/586,165

FILING DATE: 16-JAN-1996

CLASSIFICATION: 800

ATTORNEY/AGRAT INFORMATION:

NAME: Granahan, Patricia

REFERENCE/OFCKT NUMBER: 32,27

REFERENCE/COCKET NUMBER: 1405-05

TELEFAX: (617) 861-6240

TELEFAX: (617) 861-6240

TELEFAX: (617) 861-6240

TELEFAX: (617) 861-9540

INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS:

LEMOTH: 359 amino acids

TYPE: amino acid

STRANDEDNESS: single

TYPE: MIDENTER: Analyse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ) OTHER INFORMATION: Xaa means any amino acid US-09-270-767-61436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 44.4
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ||:|: :|
293 CSIPIWKIC 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1..1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY: CDS
; LOCATION: 1..1
US-08-586-165-4
                                                                                                                                                                                             ΩS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
US-09-270-767-61436
                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
```

1 CSVPLTSVC 9

```
NSGUENCE 45901
Sequence 45901, Application US/09270767
Sequence 45901, Application US/09270767
Sequence 45901, Application US/09270767
Sequence 45901, Application US/09270767
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster;
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster;
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster;
TITLE OF INVENTION: NUMBER: 1950/20,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIN Ver. 2.0
SEQ ID NO 45901
LENGTH: 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68.0%; Score 34; DB 4; Length 240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Indels
US-09-61-976-4725; Application US/09621976; Patent No. 6639063; Patent Canr. Jobert, S. APPLICANT: Jobert, S. APPLICANT: Jobert, S. APPLICANT: Glordano, J.Y. TITLE OF INVENTION: ESTS and Encoded Human Proteins.; FILE REFERENCE: GRNSET. 054PR2; CURRENT FILING DATE: 2000-07-21 NUMBER OF SEQ ID NOS: 19335; SOFTWARE: Patent.pm.; SEQ ID NO 4725.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 34; DB 4; I
Pred. No. 1.2e+02;
1; Mismatches 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: Xaa means any amino acid US-09-270-767-45901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
```

ö

ô

0; Gaps

Score 34; DB 1; Length 386; Pred. No. 3.6e+02; 1; Mismatches 2; Indels

```
Search completed: April 1, 2005, 09:36:16 Job time : 19:9726 secs
                                                                                                                                                                                 Query Match 68.0%;
Best Local Similarity 66.7%;
Matches 6; Conservative
  SEQUENCE CHARACTERISTICS:
LENGTH: 386 amino acids
                     ; LENGTH: 386 amino acid;
; TYPE: amino acid
; STRANDEDNESS: single
; TOPLOGY: linear
; MOLECULE TYPE: protein
US-08-134-012-3
                                                                                                                                                                                                                                                                                                        ||:||| |
251 CSLPLTIRC 259
                                                                                                                                                                                                                                                                            1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                          ö
                                                                                                                                                                             RESULT 14
US-09-270-767-43981
US-09-270-767-43981
Sequence 43981, Application US/09270767
Facet No. 6703491
GENERAL INFORMATION:
APPLICANT: Homburse et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFRENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SSOFTWARE: 228
LENGTH: 242
                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
US-08-134-012-3
Sequence 3, Application US/08134012
Sequence 3, Application US/08134012
Fatent No. 5516652
GENERAL INFORMATION:
APPLICANT: Abramovitz, Mark
APPLICANT: Grygorczyk, Richard
APPLICANT: Metters, Kathleen
APPLICANT: Rushmore, Thomas H.
APPLICANT: Slipez, Deborah M.
TITLE OF INVENTION: DAB ENCODING PROSTAGLANDIN RECEPTOR IP
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 242;
Best Local Similarity 55.6%; Pred. No. 2.2e+02; Matches 5; Conservative 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 140 CITY: Rahway STREET: 140 CITY: Rahway STATE: New Jersey STATE: New Jersey COUNTRY: USA ZIP: 07065
ZIP: 07065
COMPUTER LEADABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPALIDE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PALENT RELEASE #1.0, Version #1.25 CURRENT APPLICATION NUMBER: US/08/134,012 FILING DATE: 06-OCT-1993
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION: NAME: Wallen, John W REGISTRATION NUMBER: 35,403
REFERENCE/DOCKET NUMBER: 19098
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (908) 594-3905
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 68.0%; Score 34; DB 4; I
Best Local Similarity 75.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
; OTHER INFORMATION: Xaa means any amino acid
US-09-270-767-43981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: John Wallen
126 E. Lincoln Avenue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                            231 CSVPILWIC 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |:| ||||
129 SIPRTSVC 136
                                                                  1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 SVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

THIS PAGE BLANK (USPTO,

```
Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-469-186-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 ISVPLTSVP 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 1
LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
US-09-469-185-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Appli
Sequence 6, Appli
Sequence 9, Appli
Sequence 4, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 109, App
Sequence 1, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 15, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8157, Ap
Sequence 4906, Ap
Sequence 5, Appli
Sequence 9494, Ap
Sequence 58153, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                       April 1, 2005, 07:04:23 ; Search time 24.411 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 6, 1
Sequence 8, 2
Sequence 9, 2
Sequence 4, 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Sequence 1, Sequence 1, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/1/iaa/SA_COMB.pep:*
/cgn2_6/ptodata/1/iaa/SB_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PPTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-186-1

US-09-469-186-1

US-09-460-037-1

US-09-847-524-6

US-09-845-7524-9

US-09-845-7524-9

US-09-296-275-9

US-09-296-275-9

US-09-296-275-9

US-09-296-275-5

US-09-296-275-5

US-09-296-275-5

US-09-296-275-5

US-09-296-275-5

US-09-468-647A-109

US-09-186-079-22

US-09-186-070-24

US-09-186-070-24

US-09-186-070-24

US-09-270-767-88153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                  OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                 US-09-761-636A-7
61
1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ... 770 ..
                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
9
```

```
Sequence 7636, Ap
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 58767, A
Sequence 94, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 17910, A
Sequence 14877, A
Patent No. 5220013
Sequence 14557, A
Patent No. 5220013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                          APPLICANT: ACHEN, MARC G.
APPLICANT: STACKER, Steve A.
TITLE OF INVENTION ANTENDED
THE REFERENCE: ACHEN AC.
CURRENT APPLICATION NUMBER: US/09/469,186
CURRENT APPLICATION NUMBER: US/09/469,186
CURRENT FILING DATE: 1999-12-21
EARLIER PILING DATE: 1999-12-21
EARLIER PILING DATE: 1999-12-21
EARLIER PILING DATE: 1999-10-17
EARLIER PILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 1
SOFTWARE: PATENTIN VOS: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: ACHEM, Marc G.
APPLICANT: ACHEM, Marc G.
APPLICANT: ACHEM, Marc G.
APPLICANT: STACKER, Steve A.
TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF
FILE REFERENCE: ACHEM et al-1064-44660
CURRENT FILING DATE: 1999-12-21
EARLIER APPLICATION NUMBER: 60/113,254
EARLIER APPLICATION NUMBER: 60/113,254
EARLIER FILING DATE: 1999-12-21
EARLIER PILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 1
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Length 109
US-09-270-767-42833
US-09-949-016-10727
US-09-328-325-7636
US-10-042-810-2
US-10-042-810-3
US-09-631-603-2
US-09-631-603-2
US-09-786-4428-2
US-09-786-4428-2
US-09-252-944
US-09-252-944
US-09-508-370A-5
US-09-508-370A-5
US-09-508-370A-5
US-09-508-370A-5
US-09-508-370A-5
US-09-270-767-43417
US-09-270-767-43417
US-09-270-767-43417
                                                                                                                                                                                                              US-09-252-991A-23997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     70.5%; Score 43; DB 100.0%; Pred. No. 8; Live 0; Mismatches
                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                 5220013-24
                                                                                                                                                                                                                                                                                        RESUL: 1
US-09-469-186-1
; Sequence 1, Application US/09469186
· Parent No. 6383484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 1, Application US/09469185; Patent No. 6531185; GENERAL INFORMATION:
  151
300
1000
11248
11248
1334
3337
3444
409
409
601
601
601
147
```

```
Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92 ISVPLTSVP 100
77 ISVPLTSVP 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: ACHEN, Marc G
APPLICANT: ACHEN, Marc G
APPLICANT: STACKER, SEVEN A
APPLICANT: STACKER, SEVEN A
APPLICANT: STACKER, SEVEN A
APPLICANT: STACKER, SEVEN A
AMETHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
CURRENT FILING DATE: 2.001-05-03
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PATENTING OF 6
LENGTH: 110
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                              GURREAL INCOMENTATION.

APPLICANT: STACKER, Steve A.

APPLICANT: STACKER, Steve A.

TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF

FILE REFERENCE: ACTEN et al-1064-44660

CURRENT APPLICATION NUMBER: US/10/100,037

CURRENT APPLICATION NUMBER: US/469,186

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-05-17

NUMBER OF SEQ ID NOS: 1

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 109
                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70.5%; Score 43; DB 4; Length 110; 100.0%; Pred. No. 8.1; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 70.5%; Score 43; DB 4; Length 109; Best Local Similarity 100.0%; Pred. No. 8; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                    Score 43; DB 4; Length 109; Pred. No. 8; 0; Indels
                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/10100037 Patent No. 6730489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 6, Application US/09847524
Patent No. 6689352
                                                                                                         Query Match
Best Local Similarity 100.0%;
Matches 9; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , ORGANISM: Murinae gen. sp
US-09-847-524-6
                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                                                                                              2 ISVPLTSVP 10
                                                                                                                                                                                                                                 76 ISVPLTSVP 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76 ISVPLTSVP 84
                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
    LENGTH: 109
                                                               US-09-469-185-1
                                                                                                                                                                                                                                                                                                                      US-10-100-037-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-100-037-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-847-524-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                à
                                                                                                                                                                                                                                     셤
```

2 ISVPLTSVP 10

```
TELEFAX: (
TELEX: N/A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-296-275-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-915-795-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4 Application US/09847524
Facett No. 6689352
GENERAL INFORMATION:
APPLICANT: ACHEN, Marc G
TITLE OF INVENTION: GROWTH FACTOR RECEPTOR-3 AND USES THEREOF
TITLE OF INVENTION: AMETHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
TITLE OF INVENTION: GROWTH FACTOR RECEPTOR-3 AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/847,524
CURRENT FILING DATE: 2001-05-03
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PATENTIN VOIC: 2.0
                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9, Application US/09296275

Patent No. 668980

GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
APPLICANT: Steven A. STRCKER
APPLICANT: Kari ALITALO
ITILE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Eveneon, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
                                                                                                                                                                                                                                                                                                                       Query Match 70.5%; Score 43; DB 3; Length 321; Best Local Similarity 100.0%; Pred. No. 25; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70.5%; Score 43; DB 4; Length 321;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
70.5%;
Best Local Similarity 100.0%;
Pred. No. 25;
Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       United States of America
                                                       INFORMATION FOR SEQ ID NO: 9: SEQUENCE CHARACTERISTICS: LENGTH: 321 amino acids: TYPE: TYPE: protein: MOLECULE TYPE: protein: TSSUE TYPE: Mouse Lung US-08-915-795-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEFAX: (202) 628-8844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Murinae gen. sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                              168 ISVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           168 İSVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                           2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 4
LENGTH: 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-847-524-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-847-524-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-296-275-9
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

```
OCCUPATION SYSTEM: PEC-DOS/MS-DOS
OFFRANCE: PRECEDIA REALISATION DATA:
OCCUPATION SYSTEM: PC-DOS/MS-DOS
OCCUPATION SYSTEM: PC-DOS/MS-DOS
OCCUPATION SYSTEM: PRODUCTION DATA:
PRICE DATA: PRODUCTION DATA:
PRICE DATA: PRODUCTION DATA:
PRICE DATA: PRODUCTION: PRODUCTION: PARTICIPATION DATA:
PRICE PRICE DATA: PRODUCTION: PARTICIPATION DATA:
PRICE PRICE DATA: PRODUCTION: PROGRAM D.
NAME: PARTICIPATION NUMBER: 26.28 800
| PRICE PARTICIPATION DATA: PRODUCTION: PROGRAM D.
| PRICE DATA: PRODUCTION: PROGRAM D.
| PRICE DATA: PRICE DATA: PRICE D.
| PRICE DATA: PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE DATA: PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D. PRICE D.
| PRICE D
```

ô

ö

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                  APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: STEVEN A. STACKER
APPLICANT: STEVEN A. STACKER
APPLICANT: STEVEN A. STACKER
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 3; Length 354;
27;
                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPh D.
RECISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-296-275-5

Sequence 5, Application US/09296275

Patent No. 6689580

APPLICANT: Marc G. ACHEN

APPLICANT: Andrew F. WILKS

APPLICANT: Steven A. STACKER

APPLICANT: Kari ALITALO

TITLE OF INVENTION: GROWTH FACTOR
                                                                                                                                                                                         Sequence 5, Application US/08915795 Patent No. 6235713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: N/A
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 354 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (202) 628-8844
              9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein HYPOTHRICAL: NO
                                                                                         139 ISVPLTSVP 147
                                                      2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      168 İSVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Wash
STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX:
                                                                                                                                                                    US-08-915-795-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-915-795-5
            Matches
                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                           70.5%; Score 43; DB 3; Length 325; 100.0%; Pred. No. 25; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70.5%; Score 43; DB 4; Length 325; 100.0%; Pred. No. 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/296,275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWITH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/915,795
FILING DATE:
ATORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D.
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/429
TELEPHONE: (202) 628-8800
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Application US/09296275
Patent No. 6689580
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 3.25 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                            ORIGINAL SOURCE:
TISSUE TYPE: Human Breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protein HYPOTHETICAL: NO ORIGINAL SOURCE: Human Breast TISSUE TYPE: Human Breast
                                     LENGTH: 325 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                         Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
LENGTH: 325 amino acid
                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                            139 ISVPLTSVP 147
                                                                                                                                                                                                                                                                                                                           2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: UP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ပ္က
                                                                                                                                                                                                      US-08-915-795-3
                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-296-275-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-296-275-3
                                                                                                                                                                                                                                                                                                                                                              a
```

ö

us-09-761-636a-7.open.rai

```
Sequence 22, Application US/09169079
Patent No. 6824777
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 22
LENGTH: 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                   168 İSVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               168 İSVPLTSVP 176
                                                                                             2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-468-647A-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-169-079-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ## Sequence 6, Application US/09375248
## Sequence 6, Application US/09375248
## Sequence 6, Application US/09375248
## Sequence 6, Application General Bacterian Control Ferrell, Robert E.
## APPLICANT: Firegold, David N.
## APPLICANT: Firegold, David N.
## APPLICANT: Rarksainen, Marika
## TITLE OF INVENTION: THE FLT4 RECEPTOR TYROSINE KINASE (VEGFR-3)
## TITLE OF INVENTION: THE FLT4 RECEPTOR TYROSINE KINASE (VEGFR-3)
## CURRENT APPLICATION NUMBER: US/09/375,248
## CURRENT FILING DATE: 1999-08-16
## EARLIER PFLING DATE: 1999-03-26
## NUMBER OF SEQ ID NOS: 28
## SOSTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70.5%; Score 43; DB 4; Length 354; 100.0%; Pred. No. 27; tive 0; Mismatches 0; Indels
                                                                                                                                                 ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYEE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/296,275
                                                                                                                                   United States of America
                                                                                                                                                                                                                                                                                                                                                CLASSIC CATION:
PRIOR APPLICATION:
PRIOR APPLICATION NUMBER: 08/915,795
APPLING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D.
REGISTRATION NUMBER: 26,269
REGISTRATION NUMBER: 26,269
TELEPHONE: (202) 628-8800
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: N/
TELEX: N/
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 354 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGINAL SOURCE:
TISSUE TYPE: Human Lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               168 ISVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                        CITY: Washi
STATE: DC
COUNTRY: Ur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 6
LENGTH: 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-09-375-248-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-375-248-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-296-275-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
```

```
(VEGFR-3) as a Target for Tumor Imaging and Anti-Tumor Thera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                             ö
                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                             .
                                                                                                                                                                                                                                                                                     Sequence 109, Application US/09468647A

Sequence 109, Application US/09468647A

Patent No. 6783953

GENERAL INFORMATION:
APPLICANT: Gordon, Robert D
APPLICANT: Sprengel, Jorg J
APPLICANT: Sprengel, Jorg J
APPLICANT: Yon, Jeffery R
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Dijkmans, Josiena J.H.
FILE REFERENCE: B10192, 70011US00
CURRENT APPLICATION NUMBER: US/09/468,647A
CURRENT APPLICATION NUMBER: US 60/124,967

PRIOR PILING DATE: 1999-11-08

PRIOR FILING DATE: 1999-11-08

NUMBER OF SEQ ID NOS: 130

SOFTWARE: PatentIn Version 3.2
SEQ ID NO 109

LENGTH: B54
TVODE: DOR
Query Match 70.5%; Score 43; DB 4; Length 354; Best Local Similarity 100.0%; Pred. No. 27; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70.5%; Score 43; DB 4; Length 354; 100.0%; Pred. No. 27; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Kari
APPLICANT: Valcola, Reaja
APPLICANT: Valcola, Reaja
TITLE OF INVENTION: FL4 (VEGFR-1) as a Targe
FILE REFRENCE: 28113/34891
CURRENT APPLICATION NUMBER: US/09/169,079
CURRENT APPLICATION NUMBER: 08/901,710
EARLIER APPLICATION NUMBER: 08/901,710
EARLIER FILING DATE: 1994-11-14
EARLIER FILING DATE: 1994-00-09
EARLIER FILING DATE: 1994-00-09
EARLIER FILING DATE: 1992-10-09
NUMBER: OF SEQUENCE: 1992-10-09
NUMBER: OF SEQUENCE: 1992-10-09
```

```
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-169-079-22
```

Gaps °, Query Match 70.5%; Score 43; DB 4; Length 354; Best Local Similarity 100.0%; Pred. No. 27; Matches 9; Conservative 0; Mismatches 0; Indels

ó

2 ISVPLTSVP 10 |||||||||| 168 ISVPLTSVP 176

ò

g

Search completed: April 1, 2005, 09:36:16 Job time : 25.411 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 06:17:29 ; Search time 13.0685 Seconds (without alignments) 66.262 Million cell updates/sec Run on:

Title:

US-09-761-636A-10 50 1 CSVPLTSVC 9 Perfect score: Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

283416 Total number of hits satisfying chosen parameters:

283416 segs, 96216763 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

PIR 79:*
1: pir1:*
2: pir2:*
1: pir3:*
: pir4:* 1064

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		do			SUMMARIES	
Result No.	Score	Query	Length	DB	ID	Description
-	43		1487	5	S48719	phospholipase-A(2)
7	41	82.0	349	~	AD0990	probable membrane
ო	41	82.0	364	~	C86015	hypothetical prote
4	41	82.0		~	C91169	
2	41	82.0		7	S47693	hypothetical 38.5K
9	39	78.0		~	F64484	probable transamin
7	38	76.0	22	~	B55538	uvrC protein - Pse
80	36	72.0	591	N	S54788	calcium-stimulated
6	36	72.0	2180	N	T29764	hypothetical prote
10	35	70.0	91	~	D97130	transcription regu
11	35	70.0	124	~	A37931	napin - Swedish tu
12	35	70.0	127	~	S65447	allergen Sin a I -
13	35	70.0	133	Н	NWRP1	napin 1 precursor
14	35	70.0	145	~	S65481	Sin a
15	35	70.0	145	~	S65482	
16	35	70.0	145	N	S65480	Sin a
17	35	70.0	145	~	S65478	Sin a
18	35	70.0	152	~	T34649	hypothetical prote
19	35	70.0	155	~	PS0426	3G9 pre
20	35		178	Н	NWR P2	napin 2 precursor
21	35	70.0	178	N	S25130	2S storage protein
22	35		178	~	A25997	napin precursor (n
23	35		178	~	S07828	napin B - rape
24	35	70.0	178	~	S25134	6
25	35	70.0	178	~	S25137	
56	35		-	~	S10018	(clor
27	35	70.0	_	N	S52025	napin (clones BNMN
28	35		w	н	YRNC	enol mono
29	34	68.0		N	835592	major allergen lar

NADH2 dehydrogenas	etical 1	NADH2 dehydrogenas	NADH2 dehydrogenas	NADH2 dehydrogenas	NADH2 dehydrogenas	NADH2 dehydrogenas	hypothetical trans	exopolysaccharide	prostacyclin recep	proline/betaine tr	hypothetical prote	arginine-tRNA liga	arginine-tRNA liga	hypothetical prote
T12116	B96583	T11729	T11687	T11702	T11697	T11731	S70841	S77634	A57066	B71716	T08794	JC4365	JN0870	T17122
00	1 (	7	~	N	N	N	~	N	N	7	N	7	г	7
141	192	265	270	273	277	278	376	377	386	418	265	629	661	699
68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
		4	4	4	34	34	34	34	34	34	34	34	34	34
3.4 4.4	34.	m	m	۳)	.,									

## ALIGNMENTS

RESULT 1

	V48/12
	phospholipase-A(2) receptor protein - mouse
	C;Species: Mus musculus (house mouse)
	C;Date: 07-May-1995 #sequence revision 21-Jul-1995 #text change 09-Jul-2004
	C,Accession: S48719
	R;Higashino, K.; Ishizaki, J.; Kishino, J.; Ohara, O.; Arita, H.
	Eur. J. Biochem. 225, 375-382, 1994
	A; Title: Structural comparison of phospholipase-A(2)-binding regions in phospholipase-A(2)
	A; Reference number: S48719; MUID:95010128; PMID:7925459
	A;Accession: S48719
	A;Status: preliminary
Ī	A; Molecule type: mRNA
	A; Residues: 1-1487 < HIG>
	A;Cross-references: UNIPROT:Q62028; GB:D30779; NID:q1375042; PIDN:BAA06443.1; PID:q691754
Ī	C; Superfamily: phospholipase A2 receptor; C-type lectin homology; fibronectin type II rep
Ī	F;181-222/Domain: fibronectin type II repeat homology <2F1>
	F;380-503/Domain: C-type lectin homology <lch></lch>
	Query Match 86.0%; Score 43; DB 2; Length 1487;
	Pred. No. 8.2;
	Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
_	Qy 1 CSVPLTSVC 9
	Db 929 CSVPLPSIC 937
	RESITT.F 2
_	
	probable membrane protein STY4229 [imported] - Salmonella enterica subsp. enterica serova
_	C;Species: Salmonella enterica subsp. enterica serovar Typhi
	Alvote: this species has also been called salmonella typhi
	C.Parce: 09-NOV-2001 #Sequence_revision 09-NOV-2001 #tear_cmange 10-NOV-2002 C.procesion. DDAGO0
	Charlession: Aboyso

A: Parkhill; J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher, th, T.; Connerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar, S.; Moule, S.; O'Gaora, P.

Nature 413, 848-852, 2001

A:Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A; Title: Complete genome sequence of a multiple drug resistant Salmonella enterica servor A; Reference number: AB0502; MUID:21534947; PMID:11677608

A; Reference number: AB0502; MUID:21534947; PMID:11677608

A; Residues: 1-349 <-PAR>
A; Ross-references: GB:AL513382; PIDN:CAD08048.1; PID:g16505028; GSPDB:GN00176
C; Genetics: A; Conserved hypothetical protein H10338

82.0%; Score 41; DB 2; Length 349; Query Match

~

```
C:Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 01-Mar-2002
C;Accession: 847693; E65144
R;Plunkett, G.
Submitted to the EMBL Data Library, March 1994
A;Reference number: 847666
A;Accession: 847663
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-376 <PLU>A;Cross-references: EMBL:U00039; NID:g466582; PIDN:AAB18449.1; PID:g912460
A;Cross-references: EMBL:U00039; NID:g466582; PIDN:AAB18449.1; PID:g912460
A;Cross-references: EMBL:U00039; NID:g466582; PIDN:AAB18449.1; PID:g912460
A;Residues: 1-376 <PLU>
A;Rose, D.J; Mau, B.; Shao, Y.
Science 277, 1453-1462, 1997
A;Atle: The complete genome sequence of Escherichia coli K-12.
A;Atle: The complete genome sequence of Escherichia coli K-12.
A;Atecession: E65144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Map position: FOR1449710-1451008
C;Superfamily: aspartate transaminase
C;Keywords: aminotransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 77.8
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            389 CVVPLTSFC 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341 SVPLTSVC 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 SVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C, Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B55538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    847693
Mypothetical 38.5K protein (ftsy-nika intergenic region) - Escherichia coli (strain K-12
N;Alternate names: hypothetical protein 0376
Ç;Species: Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein EC84323 [imported] - Escherichia coli (strain O157:H7, substrain RI C;Species: Escherichia coli (5.5pecies: Escherichia coli (5.5pace: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 03-Aug-2001 R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G. BARayashi, T.; Makinoga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H. A;Reference number: A99629; MUD:21156231; PMID:11258796 A;Reference number: A99629; MUD:21156231; PMID:11258796 A;Reference number: A99629; MUD:21156231; A;Molecule type: DNA.
                                                                                                                                                                                                                                                                                                        C; Species: Escherichia coli
C; Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 14-Sep-2001
C; Accession 166015
R; Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca,
Nature 409, 529-533, 2001
A; Title: Genome sequence of enterohemorrhagic Escherichia coli 0157:H7.
A; Reference number: A85480; MUID:21074935; PMID:11206551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Residues: 1-364 <STO>
A;Cross-references: GB:AE005174; NID:g12518133; PIDN:AAG58583.1; GSPDB:GN00145; UWGP:Z48
A;Experimental source: strain 0157:H7, substrain EDL933
                                                                                                                                                                                                                                                                                  lypothetical protein yhhT [imported] - Escherichia coli (strain O157:H7, substrain EDL93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:BA000007; PIDN:BAB37746.1; PID:g13363797; GSPDB:GN00154
A;Experimental source: strain O157:H7, substrain RIMD 0509952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;;
0
                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 82.0%; Score 41; DB 2; Length 376; Best Local Similarity 100.0%; Pred. No. 5.6; Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                              Indels
                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Genetics:
A;Gene: BC64323
C;Superfamily: conserved hypothetical protein HI0338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Gene: yhhT
C;Superfamily: conserved hypothetical protein H10338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82.0%; Score 41; DB 2;
100.0%; Pred. No. 5.4;
iive 0; Mismatches
                   Pred. No. 5.2;
                                              Mismatches
                                         .;
o
                100.08;
                                              8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SVPLTSVC 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SVPLTSVC 336
                                                                                                                                 ||||||||
314 SVPLTSVC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Lag 8; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 SVPLTSVC 9
                                                                                                2 SVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SVPLTSVC 9
                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Residues: 1-376 <HAY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: C86015
A; Status: preliminary
A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C, Genetics:
                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                ò
```

```
C;Species: Methanococcus januachiase 2 (C;Species: Methanococcus januachiase 2 (C;Species: Methanococcus januachia animuchia (C;Species: Methanococcus januachia (C;Species: Methanococcus januachia (C;Species: Methanococcus januachia (C;Species: Sep. 1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004 (S;Splate, C;Splate: 1) (S;Splate, C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: C;Splate: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-432 <BUL>
A;Cross-references: UNIPROT:Q58874; GB:U6758B; GB:L77117; NID:g1592111; PID:g1592118; TIC
C;Genetics:
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-37 c SELATA
A;Cross-references: GB:AE000423; GB:U00096; NID:g1789880; PIDN:AAC76499.1; PID:g1789885;
A;Experimental source: strain K-12, substrain MG1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   probable transaminase (EC 2.6.1.-) MJ1479 [similarity] - Methanococcus jannaschii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ________ Pseudomonas syringae pv. syringae (strain B728a) (fragment) C;Species: Pseudomonas syringae pv. syringae C;Date: 08-Sep-1995 #sequence_revision 08-Sep-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82.0%; Score 41; DB 2; Length 376;
100.0%; Pred. No. 5.6;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 432;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: yhhT
A;Start codon: GTG
C;Superfamily: conserved hypothetical protein HI0338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N; Alternate names: alanine aminotransferase 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 39;
Pred. No.
```

ö

.. 0

```
napin - Swedish turnip (fragments)
C.Species: Brassica napus var. rapifera (Swedish turnip, rutabaga)
C.Species: Brassica napus var. rapifera (Swedish turnip, rutabaga)
C.Species: 131-May-1991 #sequence_revision 31-May-1991 #text_change 09-Jul-2004
C.Saccession: A37931
R.Svendsen, I.; Nicolova, D.; Goshev, I.; Genov, N.
R.Svendsen, I.; Nicolova, D.; Goshev, I.; Genov, N.
Carlsberg Res. Commun. 54, 231-239, 1989
A.;Title: Isolation and characterization of a trypsin inhibitor from the seeds of kohlrabi
A.;Reference number: A37931; MUID:91282906; PMID:2490369
A.;Accession: A37931
A.;Accession: A37931
A.;Resion: Lype: protein
A.;Residues: I-124 csVE>
A; Map position: 1
A;Introns: 400/2; 1608/3; 1644/1; 1674/3; 1686/2; 1731/2; 2073/1; 2098/2; 2146/3
F;15-94) Domain: LDL receptor ligand-binding repeat homology <LDL2-P;51-85, Domain: LDL receptor ligand-binding repeat homology <LDL3-P;190-132/Domain: LDL receptor ligand-binding repeat homology <LDL3-P;190-132/Domain: LDL receptor ligand-binding repeat homology <LDL3-P;190-225/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;292-272/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;230-235/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;233-359/Domain: LDL receptor ligand-binding repeat homology <LDL8-P;333-359/Domain: LDL receptor ligand-binding repeat homology <LDL8-P;369-405/Domain: LDL receptor ligand-binding repeat homology <LDL9-P;960-943/Domain: LDL receptor ligand-binding repeat homology <LDL1-P;960-943/Domain: LDL receptor ligand-binding repeat homology <LDL2-P;960-943/Domain: LDL receptor ligand-binding repeat homology <LDL3-P;1031-1063/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;1126-11663/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;1121-1164/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;11213-1164/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;11213-1164/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;11213-1164/Domain: LDL receptor ligand-binding repeat homology <LDL5-P;11131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 36; DB 2; Length 2180;
Pred. No. 2.2e+02;
1; Mismatches 0; Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Length 91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 35; DB 2
Pred. No. 20;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72.0%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 70.0
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54 CSIGYTSVC 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :||||||
922 IPLTSVC 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 VPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-591 «SID»
A; Cross-references: UNIPROT: Q39485; EMBL: Z49233; NID: g806541; PIDN: CAA89202.1; PID: g8065
A; Cross-references: UNIPROT: Q39485; EMBL: Z49233; NID: g806541; PIDN: CAA89202.1; PID: g8065
C; Superfamily: calcium-dependent protein kinase; calmodulin repeat homology; protein kinase; tar
F; 150-410/Domain: protein kinase homology «KIN»
F; 158-166/Region: protein kinase ATP-binding motif
F; 453-485/Domain: calmodulin repeat homology «EPI»
F; 489-521/Domain: calmodulin repeat homology «EPI»
F; 525-557/Domain: calmodulin repeat homology «EPI»
F; 559-557/Domain: calmodulin repeat homology «EPI»
   C;Accession: B55538
R;Rich, J.J.; Kinscherf, T.G.; Kitten, T.; Willis, D.K.
Bacteriol. 176, 7468-7475, 1994
A;Title: Genetic evidence that the gacA gene encodes the cognate response regulator for A;Reference number: A5538; MUD:9509514; PMID:8002569
A;Accession: B5538
A;Accession: B5538
A;Accession: B5538
A;Accession: B5538
A;Cacuse: references: UNIPROT:Q52377; GB:U09767
C;Genetics:
A;Gene: uvrC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Molecule type: DNA
A,Residues: 1-2180 <DUZ>
A,Cross-references: UNIPROT:O01768; EMBL:AF003133; PIDN:AAB54138.1; GSPDB:GN00019; CESP:
A,Experimental source: strain Bristol N2; clone T21E3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     calcium-stimulated protein kinase - Chlamydomonas eugametos
C;Species: Chlamydomonas eugametos
C;Date: 08-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
C;Accession: S54788
R;Siderius, M.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein T21E3.3 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Bate: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T29764
R;Du, Z.; Le, T.T.
submitted to the EMBL Data Library, May 1997
A;Description: The sequence of C. elegans cosmid T21E3.
A;Reference number: Z20681
A;Accession: T29764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 591;
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 38; DB 2; Length 22;
Pred. No. 1.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            submitted to the EMBL Data Library, May 1995
A;Description: Cloning a CDPK from Chlamydomonas eugametos.
A;Reference number: 554788
A;Accession: 554788
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 36; DB 2; Pred. No. 68; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72.0%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                      76.0%;
nilarity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 55.6
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88 CKIPLTRAC 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |||| ::||
CSVPASTVC 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Gene: CESP:T21E3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

ď

```
Query Match
Best Local Similarity 55.6%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127 CNIPQVSVC 135
          |::| |||
114 CNIPQVSVC 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Experimental source: seed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |::| |||
127 CNIPQVSVC 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-145 <GON>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: mRNA
A;Residues: 1-133 <CRO>
A;Zross-rences: UNIPROT:P01091; GB:K01544; NID:g167174; PIDN:AAA33005.1; PID:g167175
A;Experimental source: cv. Tower
C;Superfamily: wheat alpha-amylase inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                napin 1 precursor - rape (fragment)
NyAlternate names: 1.78 seed storage protein
C;Species: Brassica napus (rape)
C;Species: Brassica napus (rape)
C;Accession: A01330
R;Crouch, M.L.; Tenbarge, K.M.; Simon, A.E.; Ferl, R.
J. Mol. Appl. Genet: 2, 273-283, 1983
A;Title: cDNA clones for Brassica napus seed storage proteins: evidence from nucleotide A;Reference number: A92836; MUID:84113267; PMID:6689334
A;Accession: A01330.
                                                                                                                                                                                                                                                                                                                                               allergen Sin a I - white mustard

NyAlternate names: allergen Sin a I large chain
NyAlternate names: allergen Sin a I large chain
CyBecies: Sinapis alba (white mustard)
CyBecies: Sinapis alba (white mustard)
CyBecies: Sa-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
CyAccession: S6447; S01792
CyAccession: S6447; Monsalve, R.I.; Batanero, E.; Villalba, M.; Rodriguez, R. Bur. J. Blochem: 237, 827-832, 1996
AyTitle: Expression in Escherichia coli of Sin a 1, the major allergen from mustard.
AyAccession: S65447; MUID:96235251; PMID:8647131
AyMolecule type: protein
AyAccession: S65447
AyRolecule type: protein
AyCross-references: UNIPROR:P15322
AyExperimental source: seed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.Menendez-Arias, L.; Moneo, I.; Dominguez, J.; Rodriguez, R.
Eur. J. Biochem. 177, 159-166, 1988
A;Title: Primary structure of the major allergen of yellow mustard (Sinapis alba L.)
A;Reference number: S01791; MUID:89030681; PMID:3181153
                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;Keywords: seed; storage protein
;1-30/Product: napin 1 small chain (fragment) #status predicted <SCH>
;50-130/Product: napin 1 large chain #status predicted <LCH>
                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                           70.0%; Score 35; DB 2; Length 124; 55.6%; Pred. No. 26; ive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 35; DB 2; Length 127;
Pred. No. 26;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70.0%; Score 35; DB 1; Length 133; ilarity 55.6%; Pred. No. 27; Conservative 2; Mismatches 2; Indels
A;Cross-references: UNIPROT:Q7M1P1
C;Superfamily: wheat alpha-amylase inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Accession: S01792
A;Molecule type: protein
A;Residues: 40-127 <MEN>
C;Superfamily: wheat alpha-amylase inhibitor
C;Keywords: seed; storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 55.6%;
Marches 5; Conservative
                                                                      Query Match
Best Local Similarity 55.6
Matches 5; Conservative
                                                                                                                                                                                                             106 CNIPQVSVC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 CNIPQVSVC 117
                                                                                                                                                                              1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð,'''
                                                                                                                                                                              ò
                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
A,Molecule type: DNA
A,Residues: 1-145 <GON>
A,Cross.references: UNIPROT:Q41279; EMBL:X91801; NID:g1009437; PIDN:CAA62911.1; PID:g1005
A,Experimental source: seed
C,Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:Q41280; EMBL:X91802; NID:g1009439; PIDN:CAA62912.1; PID:g1005
allergen Sin a I (clone SIN3) - white mustard (fragment)
C;Species: Sinapis alba (white mustard)
C;Species: Sinapis alba (white mustard)
C;Species: Sinapis alba (white mustard)
C;Date: 28-0ct-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Date: 28-0ct-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
R;Gonzalez de la Pena, M.A.; Monsalve, R.I.; Batanero, E.; Villalba, M.; Rodriguez,
Eur. J Biochem 237, 827-832, 1996
A;Reference number: S65447; MUID:96235251; PMID:8647131
A;Reference number: S654481
A;Reference nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Accession: S65482
R;Gonzalez de la Pena, M.A.; Monsalve, R.I.; Batanero, E.; Villalba, M.; Rodriguez, Eur. J. Biochem. 237, 827-832, 1996
A;Title: Expression in Escherichia coli of Sin a 1, the major allergen from mustard. A;Reference number: S65447; MUID:96235251; PMID:8647131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    allergen Sin a I (clone SIN4) - white mustard (fragment)
C;Species: Sinapis alba (white mustard)
C;Date: 28-Oct_1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 35; DB 2; Length 145;
Pred. No. 30;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 70.0%; Score 35; DB 2; Best Local Similarity 55.6%; Pred. No. 30; Matches 5; Conservative 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Superfamily: wheat alpha-amylase inhibitor C; Keywords: seed; storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Gene: sin3
C;Superfamily: wheat alpha-amylase inhibitor
C;Keywords: seed; storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Search completed: April 1, 2005, 09:33:24
Job time : 13.0685 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: nucleic acid sequence not shown
```

ď

GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Database

1612378 seqs, 512079187 residues

BLOSUM62 Gapop 10.0 , Gapext 0.5

US-09-761-636A-10 50

Perfect score:

Sequence:

Scoring table:

Searched:

1 CSVPLTSVC 9

us-09-761-636a-10.open.rup

```
xenopus lae
brachydanio
oryza sativ
chlamydomon
                                                                                                                                                                  giardia lam
giardia lam
homo sapien
mus musculu
mus musculu
                                                        homo sapien
homo sapien
                                    uncultured
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Phospholipase A2 receptor precursor.
Name=Pla2glbr;
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=95010128; PubMed=7925459;
Higashino K., Ishizaki J., Kishino J., Ohara O., Arita H.;
"Structural comparison of phospholipase-A2-binding regions in
Phospholipase-A2 receptors from various mammals.";
Eur. J. Biochem. 225:375-382(1994).
               096pa7
064dg2
09h1k3
09bxn2
06nu92
06dhs0
07f0h9
                                                                                                                                                                  Q7qpz3
Q7r3q6
Q9ull5
Q6pdj2
Q69zn8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 43; DB 2; Length 1487;
Pred. No. 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 1487 phospholipase A2 receptor.
1487 AA; 170511 MW; AD8D905859B0EDE8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Higashino K.-I.;
Submitted (MAY-1994) to the EMBL/GenBank/DDBJ databases.
EMBL; D30779; BAA06443.1; -.
PIR; S48719; S48719.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGD; MGI:102468; Pla2glbr.

MGD; MGI:102468; Pla2glbr.

MGD; MGI:102468; Pla2glbr.

GG; GG:0005615; C:extracellular space; TAS.

GG; GG:0016021; C:integral to membrane; TAS.

InterPro; IPR000562; FN Type II.

InterPro; IPR0001304; Lectin C.

InterPro; IPR0001304; Lectin C.

InterPro; IPR0001304; Lectin C.

InterPro; IPR0001304; Lectin C.

Pfam; PF00040; fn2; 1.

ProDom; PR00013; FNTYPEII.

ProDom; PR00013; FNTYPEII.

PROSITE; SM000459; RICIN; 1.

PROSITE; PS00013; CIPTPE LECTIN 1; UNKNOWN 2.

PROSITE; PS00013; FIRENDECTIN 2; 1.

PROSITE; PS00013; FIRENDECTIN 2; 1.

PROSITE; PS00013; FIRENDECTIN 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                            1487 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Mismatches
                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1996 (TrEMBLrel. 01, Created)
                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                 Q96PA7
Q64DG2
Q9H1K3
Q9BXN2
Q9BXN2
Q6DHS0
Q7F0H9
Q39485
Q7R3Q6
Q7R3Q6
Q7R3Q6
Q7R3Q6
Q6PULL5
Q6PULL5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 77.8%;
Matches 7; Conservative
   00000000000000
                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
 26
1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Receptor; Signal. SIGNAL 1
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
 062028;
                                                                                                                                                                                                                                                                                                                                                                                          962028
                                                                                                                                                                                                                                                                                                                                                         RESULT 1
 062028
                                                                                                                                                                                                                                                                                                                                                                                                HID DE LA LA COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCOCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCCO COCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q82183 salmonella
Q82183 salmonella
Q8190 shigella fl
Q63791 rattus sp.
Q61xf5 methanococc
Q6xx10 oryza sativ
Q9arce lycopersico
Q9arce lycopersico
Q9arf2 capsella ru
Q8rx2 arabidopsis
Q6x673 oryza sativ
Q69gz6 methanococc
Q5894 methanococc
Q5894 methanococc
Q6594 homo sapien
Q9hv3 homo sapien
Q9hv17 homo sapien
Q9hv17 homo sapien
Q9hy17 homo sapien
Q9hy17 homo sapien
Q9hy17 homo sapien
Q9hy17 homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   homo sapien
homo sapien
homo sapien
yersinia pe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   xenopus lae
oryza sativ
drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           salmonella
salmonella
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      macaca mula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     desulfotale
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                uncultured
                                                                                                                         April 1, 2005, 03:33:32 ; Search time 55.1096 Seconds (without alignments) 83.628 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            064bx2
Q8hzr8
Q6ak47
Q6scj7
Q94jf5
Q9v6a0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28c1m0
```

SUMMARIES

Query Match Length DB

Score

Result

062028 982183 982183 982183 982183 982183 982183 985184 963781 968175 968175 968175 968175 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173 968173

3309833252525333309833

Q6SCJ7 Q94JF5 Q9V6A0

ö

Potential

```
TRANSMEM
TRANSMEM
TRANSMEM
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q8ZLE3
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8Z258
                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QBZLE3
ID QB
AC QB
                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8Z258
  FT
FT
FT
SO
SO
                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA Res. 8:11-22(2001).
-1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
-1- SIMILARITY: Belongs to the UPF0118 (perm) family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=015:H7 / Sakai / RIMD 0509952 / EHEC;
STRAIN=015:1H7 / Sakai / RIMD 0509952 / EHEC;
MEDLINE=21156231; PubMed=11258796;
Hayashi T., Makino K., Ohnshishi M., Kurokawa K., Ishii K., Yokoyama K., Han C.-G., Ohtsubo E., Nakayama K., Murata T., Tanaka M., Tobe T.,
Hida T., Takami H., Honda T., Sasakawa C., Ogasawara M., Yasunaga T.,
Kuhara S., Shiba T., Hattori M., Shinagawa H.; Sacherichia coli
"Complete genome sequence of enterchemorrhagic Escherichia Cli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STEATHEAL2 / MG1655,
BTATALEAL2 / MG1655,
SOfia H.J., Burland V., Daniels D.L., Plunkett G. III, Blattner F.R.;
"Analysis of the Escherichia coli genome. V. DNA sequence of the
region from 76.0 to 81.5 minutes."
Nucleic Acids Res. 22:2576-2586(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-21074935; PubMed=11206551; DOI=10.1038/35054089;
Perna N.T., Plunkett G. III, Burland V., Mau B., Glaener J.D.,
Rose D.J., Mayhew G.F., Evans P.S., Gregor J., Kirkpatrick H.A.,
Posfai G., Hackett J., Klink S., Boutin A., Shao Y., Miller L.,
Grotbeck E.J., Davis N.W., Lim A., Dimalanta E.T., Potamousis K.,
Apodaca J., Anantharaman T.S., Lin J., Yen G., Schwartz D.C.,
Welch R.A., Blattner F.R.;
Genome sequence of enterohaemorrhagic Escherichia coli O157:H7.";
Nature 409:529-533(2001).
                                                                                                                                                                                                                                                                                                                                                 Escherichia coli, and
Escherichia coli 0157:H7.
Bacteria, Proteobacteria, Gammaproteobacteria, Enterobacteriales,
Enterobacteriaceae, Escherichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF01594; UPP0118; 1.

Complete proteome; Hypothetical protein; Transmembrane. TRANSMEM 33 53 Potential.
                                                                                                                                          YHHT ECOLI

ID YHHT ECOLI

AC P37622; P76700; Q8X6P3;
DT O1-OCT-1994 (Rel. 30, Created)

DT 01-NOV-1997 (Rel. 35, Last sequence update)

DT 25-JAN-2005 (Rel. 46, Last amnotation update)

DT 25-JAN-2005 (Rel. 46, Last annotation update)

DF Hypothetical UPF0118 protein yhhT.

GN Name=yhhT; OrderedLousNames=b3474, 24848, EC84323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potential.
Potential.
Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AE005570; AAGS8583.1; ALT INIT.
EMBL, AP002565; BAB37746.1; ALT_INIT.
ECHOBASE; EB2134; --
ECOGENE; EG12220; yhhT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; U00039; AAB18449.1; ALT INIT.
EMBL; U00096; AAC76499.1; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nterPro; IPR002549; UPF0118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=562, 83334;
                                                 CSVPLPSIC 937
1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                        RESULT 2
                                               g
                                                                                                                                                                               THE REPORT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF 
ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOISOLISE/JB.185.77.2330-2337.2003;
Dong W., Liou S.-R., Plunkett G. III, Mayhew G.F., Rose D.J.,
Deng W., Liou S.-R., Plunkett G. III, Mayhew G.F., Rose D.J.,
Burland V., Kodoyianni V., Schwartz D.C., Blattner F.R.;
and CTI8.";
J. Bacteriol. 185:2330-2337 (2003).
BMBL; AL627281; CADO8048:1;
BMBL; AL627281; CADO8048:1;
Pfam; PF01594; UPF0118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDINE=2134947; PubMed=11677608; DOI=10.1038/35101607;
Parkhill J., Dougan G., James K.D., Thomson N.R., Pickard D., Wain J.,
Churcher C.M., Mungall K.L., Bentley S.D., Holden M.T.G., Sebaihia M.,
Baker S., Basham D., Brooks K., Chillingworth T., Connerton P.,
Cronin A., Davis P., Davies R.M., Dowd L., White N., Farrar J.,
Peltwell T., Hamlin N., Haque A., Hien T.T., Holroyd S., Jagels K.,
Krogh A., Larsen T.S., Leather S., Moule S., O'Gaora P., Parry C.,
Quail M.A., Rutherford K.M., Simmonds M., Skelton J., Stevens K.,
"Complete Genome sequence of a multiple drug resistant Salmonella
enterica serovar Typhi CT18.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Salmonella.
                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                               82.0%; Score 41; DB 1; Length 349; 100.0%; Pred. No. 17; 0; Indels ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82.0%; Score 41; DB 2; Length 349; 100.0%; Pred. No. 17; ive 0; Mismatches 0; Indels
                                                                                               Potential.
275ADBAD4FD58257 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     349 AA; 38359 MW; 226A5C802E8FDB9A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Q82258; Q7C520;
01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
Putative membrane procein.
OrderedLocusNames=STY4229, t3940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349 AA.
                      Potential.
Potential.
Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=TY2 / ATCC 700931;
MEDLINE=22531367; PubMed=12644504;
                                                                                                                   38522 MW;
                                                                                                                                                                    82.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      enterica serovar Typhi CT
Nature 413:848-852(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 82.0
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
  163
229
255
278
313
                                                                                                                                                                                                                                                                                                            314 SVPLTSVC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             314 SVPLTSVC 321
143
209
235
235
258
293
349 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                               2 SVPLTSVC 9
                                                                                                                                                                                          Local Similarity
tes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 SVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Complete proteome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Salmonella typhi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=601;
                                                                                           TRANSMEM
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                    Query Match
```

```
EMBL; AE016992; AAP19231.1; -.
InterPro; IPR002549; UPF0118.
Pfam, PF01594; UPF0118; 1.
Hypothetical protein; Complete proteome.
SEQUENCE 349 AA; 38464 MW; 935ADBA85BD65651 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                  314 SVPĽTSVC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341 SVPLTSVC 348
                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Escherichia coli 06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 SVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                               2 SVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Complete proteome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=06:H1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q8FCN4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  063791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
063791
1D 06377
AC 06377
DT 01-NN
DT 01-NN
DT 01-NN
DT 01-NN
DT (11-N)
DE PAPORT
OC EUKA:
OC EUKA:
OC EUKA:
OC TESPU
RR TISEU
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
RR HIGHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
Q8FCN4
       S K B B B
                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCOCCOS SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVING SERVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                          McClelland M., Sanderson K.E., Spieth J., Clifton S.W., Latreille P., Courtney L., Porwollik S., Ali J., Dante M., Du F., Hou S., Layman D., Leonard S., Nguyen C., Scott K., Holmes A., Grewal N., Mulvaney E., Kyan E., Sun H., Florea L., Miller W., Stoneking T., Nhan M., Waterston R., Wilson R.K., "Complete genome sequence of Salmonella enterica serovar Typhimurium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Genome sequence of Shigella flexneri 2a: insights into pathogenicity through comparison with genomes of Escherichia coli K12 and O157."; Nucleic Acids Res. 30:4432-4441(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jin Q., Yuan Z., Xu J., Wang Y., Shen Y., Lu W., Wang J., Liu H., Yang Y., Zhang X., Zhang J., Yang G., Wu H., Qu D., Dong J., Sun L., Xue Y., Zhao A., Gao Y., Zhu J., Kan B., Ding K., Chen S., Cheng H., Yao Z., He B., Chen R., Ma D., Qiang B., Wen Y., Hou Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=2259074; PubMed=12704152;
DOI=10.1128/IAI.71.5.2775-2786.2003;
Med J., Goldberg M.B., Burland V., Venkatesan M.M., Deng W.,
Fournier G., Mayhew G.F., Plunkett G. III, Rose D.J., Darling A.,
Mau B., Perna N.T., Payne S.M., Runyen-Janecky L.J., Zhou S.,
Schwartz D.C., Blattner F.R.;
"Complete genome sequence and comparative genomics of Shigella
flexneri serotype 2a strain 2457T.";
Infect. Immun. 71:2775-2786(2003):
                                                                                                                                                                                                     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Salmonella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=301 / Serotype 2a;
MEDLINE=22272406; PubMed=12384590; DOI=10.1093/nar/gkf566;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82.0%; Score 41; DB 2; Length 349; 100.0%; Pred. No. 17; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=21534948; PubMed=11677609; DOI=10.1038/35101614;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             349 AA; 38301 MW; 21A55D9F2C5FDB9A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       083J80; Q7BYV3;
01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical procein yhhr.
Name=yhhr; OrderedLocusNames=S4271, SF3492;
01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                      Putative PerM family permease.
Name=yhhT; OrderedLocusNames=STM3582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AE008865; AAL22442.1; -. Pfam; PF01594; UPF0118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AE015357; AAN44951.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Enterobacteriaceae; Shigella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nature 413:852-856(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.
nes 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                            Salmonella typhimurium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            314 SVPLTSVC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 SVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shigeila flexneri.
                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Complete proteome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                               NCBI_TaxID=602;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=623;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=2457T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              083380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yu J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
083.380
10 083.380
01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01-40
DD 01
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=22388234, PubMed=12471157, DOI=10.1073/pnas.252529799;
Welch R.A., Burland V., Plunkett G. III, Redford P., Roesch P.,
Rasko D., Buckles E.L., Liou S.-R., Boutin A., Hackett J., Stroud D.,
Mayhew G.F., Rose D.J., Zhou S., Schwartz D.C., Perna N.T.,
Mobley H.L.T., Donnenberg M.S., Blattner F.R.;
"Extensive mosaic structure revealed by the complete genome sequence
of uropathogenic Bscherichia coli ";
Proc. Natl. Acad. Sci. U.S.A. 99:17020-17024(2002).
EMEL, ABO16768; AAN82703.1;
InterPro, IPR002549; UPF0118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria, Proteobacteria, Gammaproteobacteria, Enterobacteriales,
Enterobacteriaceae, Escherichia.
NCBI_TaxID=217992;
                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
TISSUB=Smooth muscle;
MEDLINE=95010128; PubMed=7925459;
Higashino K., Ishizaki J., Kishino J., Ohara O., Arita H.;
"Structural comparison of phospholipase-A2-binding regions in phospholipase-A2 receptors from various mammals.";
                Score 41; DB 2; Length 349;
Pred. No. 17;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82.0%; Score 41; DB 2; Length 376; 100.0%; Pred. No. 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    376 AA; 41438 MW; 6B39C765A5D7315A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-UJUN-2003 (TrEMBLrel. 24, Last annotation update)
Hypothetical protein yhhr.
Name=yhhr; OrderedLocusNames=c4267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                          376 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Pred. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              409 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FROM N.A.
5:H1 / CFT073 / ATCC 700928 / UPEC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last seq
01-OCT-2003 (TrEMBLrel. 25, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Phospholipase A2 receptor (Fragment)
                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2003 (TrEMBLrel. 23, Created)
                                                                                                                                                                                                                                                                                                                       PRT;
82.0%; Scc...
100.0%; Pre/
0; P
                                            Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best_Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
```

```
09ARC6
                                                                              Q6ZKN1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
   RESULT 9
                                           Q6ZKN1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9ARC6
                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Complete genome sequence of the mesophilic hydrogenotrophic methanogen Methanococcus maripaludis.";
Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; BX957222; CAF30952.1;
GO; GO:0016847; F:1-aminocyclopropane-1-carboxylate synthase . . .; IEA.
GO; GO:0009183; F:transaminase activity; IEA.
GO; GO:0009088; F:transaminase activity; IEA.
InterPro; IPR004839; Aminotrans I.I.
InterPro; IPR004839; Aminotrans I/II.
PF00155; Aminotran I/II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-S2 / LL,
Hendrickson E.L., Kaul R., Zhou Y., Bovee D., Chapman P., Chung J.,
Conway de Macario E., Dodsworth J., Gillett W., Graham D.E.,
Haydock A.K., Kang A., Land M.L., Levy R., Lie T.J., Major T.,
Moore B., Porat I., Overbeek R., Palmeiri A., Rouse G.,
Saenphimmachak C., Soll D., Whitman W.B., Larimer F.W., Olson M.V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 41; DB 2; Length 434;
Pred. No. 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82.0%; Score 41; DB 2; Length 409; 66.7%; Pred. No. 20; tive 2; Mismatches 1; Indels
                                                                                                                                                    Higashino K.-I.;
Submitted (MAY-1994) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Aminotransferase (Subgroup I) (EC 2.6.1.-).
Methanococcus maripaludis.
Archanococcaceae; Methanococci; Methanococcales;
Methanococcaceae; Methanococcus.
101 TaxID=39152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434 AA; 49487 MW; 3596D870353CEB04 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409 409
409 AA; 47740 MW; 56D957D2DCA00AD8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               434 AA
                                                                                                                                                                                                                   EMBL; D30701; BAA064451; -...
HSSP; P22030; IJJK.
GO:00048972; F:receptor activity; IEA.
GO; GO:000529; F:sugar binding; IEA.
InterPro; IPR001304; Lectin_C.
Ffam, PF00059; Lectin_C.
SWARY; SM00034; CLECT; 3.
PROSITE; PS50041; C_IYPE_LECTIN_2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
Eur. J. Biochem. 225:375-382(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR00753; ACCSYNTHASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 77.8
es 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   396 CSVPMPSIC 404
                                                                                                                 TISSUE=Smooth muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Complete proteome.
SEQUENCE 434 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Leigh J.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Receptor.
NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QGLXFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
10 CALXES
10 DAT
AC 06 LXX
AC 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - JI
DT 05 - 
   REL REP REP REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL DR REL 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
lamiids; Solanales; Solanaceae; Solanum.
NCBI _TaxID=4081;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rossberg M., Theres K., Acarkan A., Herrero R., Schmitt T., Schhudcher K., Schmitt G., Schnidt R.; "Comparative sequence analysis reveals extensive microcolinearity in the Lateral supressor regions of the tomato, Arabidopsis and Capsella
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plant Cell 13:979-988(2001).

R RMBL; AJ303345; CAC36403.1; -.
R HSSP; QAZRB9; IXFL.
R GO; GO:0016024; CRembrane; IEA.
GO; GO:0016021; F:volleage-gated chloride channel activity; IEA.
R GO; GO:006821; P:chloride transport; IEA.
R InterPro; IPR00164; CBS.
R InterPro; IPR001807; Cl-channel_volt.
Pfam; PF00571; CBS; 2.
R Pfam; PF00571; CBS; 2.
R Pfam; PR00551; CCCHANNEL.
R SMART; SM00116; CBS; 2.
Hypothetical protein.
                                                                                                                                                 Oryza sativā (japonica cultivar-group).
Bubrzyota, Vizidiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                Sasaki T., Matsumoto T., Yamamoto K.;
Sasaki T., Matsumoto T., Yamamoto K.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
BMBL, AP003873; BAD08801.1; -.
GO; GO:00165020; Camebrane; IEA.
GO; GO:00065247; F:voltage-gated chloride channel activity; IEA.
GO; GO:0006821; P:chloride transport; IEA.
InterPro; IPR001804; CBS.
InterPro; IPR01804; CBS.
InterPro; IPR01807; C1-channel_volt.
Pfam; PF00571; CBS; 2.
Pfam; PF00564; Voltage CLC; 1.
PRINTS; PR00762; CLCIANNEL.
SMART; SM00116; CBS; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82.0%; Score 41; DB 2; Length 750;
100.0%; Pred. No. 37;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     750 AA; 80236 MW; F5272D1AE611EAB2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9ARC6;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein.
Lycopersicon esculentum (Tomato).
                                      05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          750 AA
750 AA
                                                                                                      Putative CLC-f chloride channel protein.
Name=0J1118_A06.1;
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE=21178822; PubMed=11283350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8; Conservative
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             473 CSVPLTSV 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       œ
                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CSVPLTSV
                                                                                                                                                                                                                                     NCBI_TaxID=39947;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genomes."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
```

; 0

Gaps

.; 0

2; Indels

389 CGVPLTSFC 397

1 CSVPLTSVC 9

ò 셤

S

ò 셤

```
Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S., White O., Alonso J., Altafi H., Araujo R., Bowman C.L., Brooks S.Y., Buehler E., Chan A., Chao Q., Chen H., Cheuk R.F., Chin C.W., Chun M., Conway A.B., Conway A.B., Creasy T.H., Dewar K., Dunn P., Ergu P., Feldblyum T.V., Feng J.-D., Fong B., Pujii C.Y., Gill J.E., Goldsmith A.D., Haas B., Hansen N.F., Hughes B., Huizar L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=CV. Columbia; TISSUE=Aerial parts; Vinauger-Douard M., Charon C., Lapous D., Allot M., Granier F., Bouchez D., Barbier-Brygoo H., Ephritikhine G.; "Molecular and functional characterization of AtCLC-f, a putative new Arabidopsis chloride channel."; Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
Schumacher K., Schmitz G., Schmidt R.; "Comparative sequence analysis reveals extensive microcolinearity in the Lateral supressor regions of the tomato, Arabidopsis and Capsella
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rossberg M., Theres K., Acarkan A., Herrero R., Schmitt T., Schumacher K., Schmitz G., Schmidt R.; "Comparative sequence analysis reveals extensive microcolinearity in the Lateral suppressor regions of the tomato, Arabidopsis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Viridiplantae; Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids, eurosids II; Brassicales, Brassicaceae, Arabidopsis.
                                                                                                                                                                                                             EMBL, AJ30349; CAC36391.1; -...
GO, GO:0016020; C:membrane; IEA.
GO, GO:0005247; F:volteage-gated chloride channel activity; IEA.
GO, GO:0006821; P:nloride transport; IEA.
InterPro; IPR000644; CBS.
InterPro; IPR01807; C1-channel_volt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QBRXR2; Q9ARM3; Q9LGO4; 29-MAR-2004 (Rel. 43, Created) 29-MAR-2004 (Rel. 43, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Chloride channel protein CLC-f (AtCLC-f). Name=CLC-f; OrderedLocusNames=At1g55620; ORFNames=F20N2.5; Arabidopsis thaliana (Mouse-ear cress).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82.0%; Score 41; DB 2; Length 780; 100.0%; Pred. No. 38; 0; Indels ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAINecv. Columbia; MEDLINE=210.1038/35048500; MEDLINE=21016719; PubMed=11130712; DOI=10.1038/35048500;
                                                                                                                                                                          Schmidt R.H.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00511; CBS; 2.
Pfam; PF00554; Voltage_CLC; 1.
PRINTS; PR00762; CLCHANNEL.
SMART; SM00116; CBS; 2.
Hypothetical protein: SEQUENCE 780 AA; 83811 MW; 5718PA7E2AEE81FB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. (ISOFORM 1).
STRAIN=cv. Columbia;
MEDLINE=21178822; PubMed=11283350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Capsella genomes.";
Plant Cell 13:979-988(2001).
                                                                            genomes.";
Plant Cell 13:979-988(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            513 ČSVPĽTSV 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSVPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
CLCF ARATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, asterids, lamiids, Solanales, Solanaceae, Solanum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=21178822; PubMed=11283350; Rossberg M., Theres K., Acarkan A., Herrero R., Schmitt T., Schumacher K., Schmitz G., Schmidt R.; Schumacher K. Schuce and Verensia extensive microcolinearity in the Lateral supressor regions of the tomato, Arabidopsis and Capsella
                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Capsella.
NCBI_TaxID=81985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO; GO:0016020; C:membrane; IEA.
GO; GO:00162247; F:voltage-gated chloride channel activity; IEA.
GO; GO:0006821; P:chloride transport; IEA.
InterPro; IPR0016044; Cl.-channel_volt.
Pfam; PF00571; CBS; 2.
Pfam; PF00571; CBS; 2.
PRINTS; PR00762; C.CHANNEL.
SMART; SM00116; CBS; 2.
Hypothetical protein.
                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [1] SEQUENCE FROM N.A. SEQUENCE FROM N.A. MEDLINB=21178822; PubMed=11283350; Rossberg M., Theres K., Acarkan A., Herrero R., Schmitt T.,
                                      DB 2; Length 750;
37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82.0%; Score 41; DB 2; Length 750; 100.0%; Pred. No. 37; o; Mismatches 0; Indels
                                                                                                0; Indels
750 AA; 79985 MW; 928E6D1EE2E5FCD4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             750 AA; 79994 MW; 400448EB3D37042C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                        (TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 25, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                        750 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780 AA
                                             82.0%; Score 41; DB 100.0%; Pred. No. 37; ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lycopersicon esculentum (Tomato).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AJ303344; CAC36398.1; -. HSSP; Q8ZRP8; 1KPL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     genomes.";
Plant Cell 13:979-988(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-OCT-2003 (TrEMBLrel. 25,
                    Query Match
Best Local Similarity luv...
8, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8; Conservative
                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                          474 CSVPLTSV 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               474 CSVPLTSV 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical protein.
                                                                                                                                              1 CSVPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSVPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Capsella rubella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=4081;
                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                          01-JUN-2001
01-OCT-2003
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                            Q9ARC9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09ARF2;
                                                                                                                                                                                                                                                                                                                     O9ARC9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9ARF2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
09ARF.
10 09ARF.
AC 09ARF.
DT 01-JUJ
DT 01-JUJ
DT 01-JUJ
DT 01-OC Sperm.
OC Sperm.
OC Sperm.
OC Sperm.
CO NCBI.
                                                                                                                                                                                                                                                                   RESULT 11
09ARC9
10 DARC
09ARC
00 OD 1-JU
DT 01-OC
DE LYCOP
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPETT
00 SPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
```

ò 셤

ö

Gaps

ö

..

Gaps

0

0; Indels

```
gene model prediction.
                  Nature 408:816-820(2000).
                                                                                                           Voltage-gated channel
                                                         Name=1
                                                            Name=2
                                                                                                              TRANSMEM
TRANSMEM
                                                                                                            TRANSMEM
                 thaliana.
                                              genome.
```

```
Score 41; DB 1; Length 781;
Pred. No. 38;
                                                                                                                                                                                                                                                          BE9DEB3603D9E0D8 CRC64;
                                                                                                                                                                                                       Missing (in isoform 2)./FTId=VSP_009325.
                                                                                                                                                                                                                                          E -> K (in Ref.
                                                (Potential).
                                                                                                                                                                                                                                                                                                         100.0%; Prec. ....
                                                                                                    (Potential)
                                                                                                                      (Potential)
                                                                                                                                       (Potential)
                                                                      (Potential)
                   Potential)
Potential)
                                                                                    (Potential)
   (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                   1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00571; CBS; 2.
Pfam; PF00654; Voltage_CLC; 1.
                                                                                                                                                                                                                                                             83548 MW;
                                                                                                                                                                                                                                                                                              82.0%;
                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 82.0
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
 270
3334
3344
3344
3370
3370
377
777
778
198
                                                                                                                                                                                                                                                                                                                                                                                                 514 CSVPLTSV 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CSVPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                  1 CSVPLTSV 8
                                                                                                                                                                                                                                                               781 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=39947;
 250
279
314
350
388
4433
4457
502
523
619
697
                                                                                                                                                                                                                                             643
                                                                                                                     TRANSMEM
TRANSMEM
TRANSMEM
DOMAIN
                   TRANSMEM
TRANSMEM
TRANSMEM
TRANSMEM
TRANSMEM
                                                                                                                                                                                                               VARSPLIC
                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                             CONFLICT
 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q6Z673;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06Z673
                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q6Z673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
   PT
PT
PT
PT
PT
PT
PT
SO
SO
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                              Mandad K., Lim J., Dale J.M., Chen H., Shinn P., Palm C.J., Southwick A.M., Wu H.C., Kim C.J., Nguyen M., Pham P.K., Cheuk R.F., Sauthwick A.M., Wu H.C., Kim C.J., Nguyen M., Pham P.K., Cheuk R.F., Miranda M., Quach H.L., Tipp M., Chang C.H., Lee J.M., Toriumi M.J., Arakawa T., Banh J., Banno F., Bowser L., Brooks S.Y., Carrinci P., Arakawa T., Banh J., Banno F., Bowser L., Brooks S.Y., Carrinci P., Chao Q., Choy N., Enly A., Golfmeith A.D., Gurjal M., Hansen N.F., Hayashizaki Y., Johnson-Hopson C., Hauan V.W., Iida K., Karnes M., Khan S., Koesema E., Ishida J., Jiang P.X., Jones T., Kawai J., Khan S., Koesema E., Ishida J., Jiang P.X., Jones T., Kawai J., Kaniya A., Mayers C., Nakajima M., Narlasaka M., Seki M., Sakurai T., Yuan S., Shinozaki K., Davis R.W., Theologis A., Ecker J.R.; Yammura Y., Empirical analysis of transcriptional activity in the Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Isoid=Q8RXR2-2; Sequence=VSP_009325;
Note=May be due to a competing acceptor splice site. No experimental confirmation available;
-:- SIMILARITY: Belongs to the chloride channel (TC 1.A.11) family.
-:- SIMILARITY: Contains 2 CBS domains.
-:- CAUTION: Ref.3 sequence differs from that shown due to erroneous
Hunter J.L., Jenkins J., Johnson-Hopson C., Khan S., Khaykin E., Kim C.J., Koo H.L., Kremenetskaia I., Kurtz D.B., Kwan A., Lam B., Langin-Hoper S., Lee A., Lee J.M., Lenz C.A., Li J.H., Li Y.-P., Lin S.X., Liu S.X., Liu S.A., Malti R., Marziali A., Milischer J., Miranda M., Nguyen M., Nierman W.C., Osborne B.I., Sakano H., Salzberg S.L., Schwartz J.R., Shinn P., Southwick A.M., Utterback T., Van Aken S., Vaysberg M., Vysotskaia V.S., Walker M., Wu D., Yu G., Fraser C.M., Veneer J.C., Davis R.W.;
                                                                                                                                                                                                                                               SEQUENCE FROM N.A. (ISOFORM 2).
STRAIN=cv. Columbia;
MEDLINE=22954850; PubMed=14593172; DOI=10.1126/science_1088305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alternative splicing, CBS domain, Chloride, Chloride channel, Ion transport, Ionic channel, Repeat, Transmembrane,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IsoId=Q8RXR2-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AJ303348; CAC36386.1; -...
EMBL; AF366368; AAK53391.1; -...
EMBL; AC002328; AAK5339.1; AL-SEQ.
EMBL; AY080722; AAL66324.1; -...
GeneFarm; 2843; 272.
InterPro; IPR00644; CBS.
InterPro; IPR001807; C1-channel_volt.
Pfam; PF00551; CBS; 2...
PFRM; PR00552; CLCHANNEL.
SMART; SM00116; CBS; 2...
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                     Oryza sativa (japonica cultivar-group).
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AP0005052; BAD12997.1; -.
EMBL; AP004040; BAD12877.1; -.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005247; F:voltage-gated chloride channel activity; IEA.
GO; GO:0006821; P:chloride transport; IEA.
InterPro; IPR000644; CBS.
InterPro; IPR001807; Cl-channel_volt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                Sasaki T., Matsumoto T., Yamamoto K.;
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 2, PAC
clone:P0654B04.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sasaki T., Matsumoto T., Yamamoto K.; Matsumoto T., Pamamoto M.; "Oryza sativa nipponbare(GA3) genomic DNA, chromosome 2, BAC clone:OJ1008_D06.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82.0%; Score 41; DB 2; Length 783; 100.0%; Pred. No. 38; 0; Indels :ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00762; CLCHANNEL.
SEQUENCE 783 Aa; 83361 MW; 1DA7D7EE91260802 CRC64;
                                                        05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 28, Last annotation update)
Putative chloride channel protein.
Name=P0654804.5; Synonyms=OJ1008_D06.20;
783 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       510 CSVPLTSV 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

(Potential). (Potential). (Potential).

```
PESULT 15
069026
D0 069026
D0 069026
D1 069026
D2 060026
D2 060026
D1 25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
D1 25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
D1 25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
D2 25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
D2 25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
D2 25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
D3 25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
D4 25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
D5 Mchanococcaceae, Methanococci, Methanococcales;
D6 Mchanococcaceae, Methanococci, Methanococcales;
D8 No. NCBL TaxID=2188;
D8 No. NCBL TaxID=2188;
D8 No. NCBL TaxID=2188;
D8 SEQUENCE FROW N.A.
CTrOmosomal segregation protein SMC.";
D8 SEQUENCE FROW N.A.
CTROMOSOMAL Segregation protein SMC.";
D8 CO. 0000843; Firransaminase activity; IEA.
D8 CO. 00008483; Firransaminase activity; IEA.
D8 CO. 00008483; Firransaminase activity; IEA.
D8 CO. 00008483; Firransaminase activity; IEA.
D8 CO. 000089483; Firransaminase activity; IEA.
D8 CO. 000089483; Firransaminase activity; IEA.
D8 CO. 000089483; Firransferase activity; IEA.
D8 CO. 000089483; Firransferase activity; IEA.
D8 PRINTS; PRO04839; Aninotrans_I/I.
D8 PRINTS; PRO04839; ACCSYNTHASE.
SCOURNCE 440 AA, 49619 MW; 14463BE000595831 CRC64;
CALTANSS PRO0753; ACCSYNTHASE.
SCOURT MATCH
D8 CO. 00008483 PRINTS; SCORE 40; D8 2; Length 440;
D8 Best Local Similarity 77.8%; Pred. No. 33; Pred. Co. 00088484
```

Search completed: April 1, 2005, 09:26:01 Job time : 57.1096 secs

1 CSVPLTSVC 9 | ||||| | 394 CMVPLTSFC 402

ઠે

THIS PAGE BLANK (USPTO)

ORF col hum nov pol con pol pol pol ext neco

Human

Novel Human Human

Human

Human Human

Pseudomon

Perfect score:

Title:

Sequence:

ı

OM protein

е ::

Run

Scoring table:

Searched:

Minimum DB 8 Maximum DB 8

Human Human

Human

Human Human Human

Human

Human Human

Human

Human

```
vel monomeric monocyclic peptide, used to interfere with angiogenesis, lymphangiogenesis, is produced by cyclizing a peptide loop fragment om an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabet a carbon separation distances on opposite antiparallel strands of a
                                        Aam43498
Abb10143
Abp10143
Abp47894
Abp66730
Adc10856
Adc46210
Adm24519
Abm24519
Abm24519
Abm24519
Abm24519
Abm24519
Abm24519
                                                                                                                                                         Aay41764 1 Aawy3888 1 Aab44320 1 Aau29077 1 Abb90372 1
Abp06465 | Aag74036 | Aau21569 | Aau19674
                                                                                                                                                                                                                                                                                                                                                                       Human, VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

    .9
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cendron A;
                                                                                                                                                                                                                                    ALIGNMENTS
                               AAU19674
AAM43498
ABB10143
AAU18408
ABP47894
ABP66730
ADC10856
                                                                                                                                               AAY27449
AAY41764
AAW73888
                                                                                                                 ADM24519
ABO71618
                                                                                                                                                                                         AAU29077
ABB90372
                                                                                                                                      AAW52837
                                                                                                                                                                                AAB44320
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 49; Page 32; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              s,
                                                                                                                                                                                                                                                                                        AAU04529 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                     VEGF based monocyclic peptide 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stacker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JAN-2001; 2001WO-US001533
                                                               40077877878
                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-442248/47.
 Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200152875-A1
                                                                                                                                                                                                                                                                                                                                26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Achen MG,
  Synthetic
                                                                                                                                                                                                                                                                                                             AAU04529;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from
                                                                                                                                                                                                                                                                   RESULT 1
                                                                                                                                                                                                                                                                              AAU04529
  Abm60206 Propionib
Abu49796 Propionib
Abu49796 Propionib
Abu49894 Propionib
Abu40413 Propionib
Abu40413 Propionib
Abu40413 Propionib
Abu40413 Propionib
Abu40498 Human pro
Abb40498 Human gen
Abg404095 Human sec
Abr47707 Human sec
Add40695 Human sec
Add40695 Human sec
Add40696 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add37860 Human sec
Add3869 Propionib
Abm54888 Propionib
Abm54888 Propionib
Abb67846 Drosophil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murine ph
Klebsiell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Propionib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aau04529 VEGF base
                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                       ; Search time 67.9315 Seconds
(without alignments)
51.240 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Abo64325
Aau63687
          GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                          2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                      protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA40695
ABR47707
ADC74086
ADD37860
ADL77406
ABL77406
ABMS4988
ABBS4988
ABBS4988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABM60206
AAU53277
ABM49796
ADM18428
AAU43894
ABM40413
AAU74551
ABG11475
AAE01782
AAE01782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADA56848
                                                                        April 1, 2005, 03:27:37
                                                                                                                                                          BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                          geneseqp2000s:*
geneseqp2001s:*
geneseqp2002s:*
                                                                                                                                                                                                                                                                                                                                                                           geneseqp2003as:*
geneseqp2003bs:*
geneseqp2004s:*
                                                                                                                                                                                                                                                                                                        A_Geneseq_16Dec04:*
                                                                                                                                                                                                                                                                                                                      geneseqp1980s:*
geneseqp1990s:*
                                                                                                                  US-09-761-636A-10
50
                                                                                                                                                                                                                                   seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1487
73
73
88
88
88
432
101
101
101
121
802
802
802
802
802
802
802
                                                                                                                                       1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
86
86
1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                       Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0
```

Database

Score

Result Š.  $\begin{array}{c} \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{7} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{8} \\ \mathbf{$ 

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis,

CC neovascularisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC The condition is diabetic retinopathy, psoriasis, arthropathy, cc hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive of cormon related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability cor brain. The peptides are used to inage blood vessels and lymphatic or brain. The peptides are used to inage blood vessels and lymphatic or brain. The peptides are used to inage blood vessels and lymphatic or with at least one biological activity induced by VEGF. VEGF-C or D and contour inflammation, especially rheumatoid arthritis, psoriasis and continued to the contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or contour or co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human and mouse type C lectin(s) - useful as competitive inhibitor of lectin activity and as molecular markers for tissues that express them.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Endocytic C lectin family; E-selectin; type C lectin; identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 50; DB 4; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine phospholipase A2 receptor protein SEQ ID NO:7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB23826 standard; protein; 1487 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example, Fig 3; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-00840062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96US-0052524P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JAN-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 100.
1es 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-535838/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-APR-1996;
24-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US6117977-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB23826;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wu K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB23826
         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
```

The present invention describes an isolated type C lectin polypeptide (I) comprising amino acid residues 37-1393, 37-174, 175-229, 234-360, 381-507, 520-645, 667-809, 844-951, 970-1108, 1110-1243, or 1259-1393 of the protein sequence given in AAB23822. The first 2 polypeptides are capable of binding to a carbohydrate residue, and the rest of the polypeptides

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
are useful for producing antibodies capable of binding to these 2 polypeptides. Polynucleotide sequence encoding the polypeptides of the invention are useful in the identification and purification of their native ligands, and as molecular markers of the tissues in which they are expressed. They provide valuable sequence motifs, which can be inserted and provide hybridisation probes for searching cDNA and genomic libraries for the coding sequence of other type C lectins. Variants of type C lectins may be used therapeutically as competitive inhibitors of the biological activity of native type C lectins. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention describes a new isolated nucleic acid encoding a Klebsiella pneumoniae polypeptide. Also described are: a recombinant expression vector comprising the nucleic acid, operably linked to a transcription regulatory element; and a cell comprising the recombinant expression vector. The nucleic acid is useful for preparing a vaccine composition against Klebsiella pneumoniae. This is the amino acid sequence of a Klebsiella pneumoniae polypeptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid encoding a Klebsiella pneumoniae polypeptide, useful for
preparing a vaccine composition against Klebsiella pneumoniae.
                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Recombinant expression vector; transcription regulatory element; Klebsiella pneumoniae protein; antibacterial; Vaccine.
                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                   Length 1487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82.0%; Score 41; DB 7; Length 422;
                                                                                                                                                                                                                                                Score 43; DB 2; Length 148
Pred. No. 1.7e+02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Klebsiella pneumoniae polypeptide segid 10842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 10842; 932pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.08; Pred. .v.
                                                                                                                                                                                                                                                                                                                                                                                                                               ABO64325 standard; protein; 422 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-JAN-2000; 2000US-00489039.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0117747P.
                                                                                                                                                                                                                                                   86.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                  929 CSVPLPSIC 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Breton GL, Osborne M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Klebsiella pneumoniae.
                                                                                                                                                                                                                                                                                                                  σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-895346/82.
N-PSDB; ACH97876.
                                                                                                                                                                                     to a type C lectin
                                                                                                                                                                                                                                                               Local Similarity
nes 7; Conserv
                                                                                                                                                                                                                                                                                                                   1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                     Sequence 1487 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 422 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US6610836-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABO64325;
                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                    Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                  ABO64325
        8
                                                                                                                                                                                                                                                                                                                                             g
```

Mon Apr

σ

CSVPLTSVC

(first entry)

```
78.0%; Score 39; DB 4; Length 73; 66.7%; Pred. No. 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                              obtained in electronic format directly fiftp.wipo.int/pub/published_pct_sequences
                                               AAU63687 standard; protein; 73 AA.
                                                                                                                                                                                           21-APR-2000; 2000US-0199047P.
02-JUN-2000; 2000US-0208841P.
07-JUL-2000; 2000US-0216747P.
                                                                                                                                                                               20-APR-2001; 2001WO-US012865
                                                                                                                                                                                                                                    Skeiky YAW, Persing DH, M.
L'maisonneuve J, Zhang Y,
                                                                         27-FEB-2002 (first entry)
                                                                                                                                      Propionibacterium acnes
                                                                                                                                                                                                                                                                                          treating acne vulgaris.
            387 SVPLTSVC 394
                                                                                                                                                                                                                                                        WPI; 2001-616774/71.
N-PSDB; AAS59634.
SVPLTSVC 9
                                                                                                                                                                                                                      CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 73 AA;
                                                                                                                                                   WO200181581-A2.
                                                                                                                                                                 01-NOV-2001.
N
                                                            AAU63687;
                                        AAU63687
ઠ
            원
```

```
Propionibacterium acnes predicted ORF-encoded polypeptide #24882.
                                                                                                                                                                                                                                                                    Acne vulgaris; antiseborrhoeic; dermatological; antibacterial;
                                                                                                                                                                                                                                                                                        immunostimulant; immune response; vaccine
                                                                                                            ABM60206 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mitcham JL, Skeiky YAW, Pers
Zhang Y, Wang S, Jen S, Lod
Barth B, Vallieve-Douglass J;
                                                                                                                                                                                                                                                                                                                                                                                                                                             11-OCT-2002; 2002WO-US032727.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-OCT-2001; 2001US-00978825
                                                                                                                                                                                                                                                                                                                            Propionibacterium acnes.
35 CRAPITSVC 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-381789/36.
N-PSDB; ACF64563.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                  WO2003033515-A1.
                                                                                                                                                                                        20-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                       24-APR-2003
                                                                                                                                                  ABM60206;
                                                                          RESULT 5
                                                                                                ABM60206
              셤
                                                                                                                                Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic polypeptides. The proteins and their associated DNA sequences are used in the treatment, prevention and diagnosis of medical conditions caused by a canes. The disorders include SAPHO syndrome (synovitis, acne, bustulosis, hypertosis and osteomyelitis), uveitis and endophthalmitis. Pracnes is also involved in infections of bone, joints and the central nervous system, however it is particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a patient comprises contacting a cample with a binding agent that binds to the proteins of the invention and determining the amount of bound protein in the sample. The polypeptides may be used as antigens in the production of antibodies capecific for P. acnes proteins. These antibodies can be used to downregulate expression and activity of P. acnes polypeptides and therefore treat P. acnes infections. The antibodies may also be used as diagnostic agents for determining P. acnes presence, for example, by cancy multiply patent did not form part of the printed specification, but was considered in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endophthalmitis; bone; joint; central nervous system; ELISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay; dermatological; osteopathic; neuroprotectant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Propionibacterium acnes polypeptides and nucleic acids useful for vaccinating against and diagnosing infections, especially useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bhatia A;
                                                                                                                                                                                                                              Propionibacterium acnes immunogenic protein #24583.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wang SS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mitcham JL, Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; SEQ ID NO 24882; 1069pp; English.
```

Maisonneuve JL; Jones R, Carter D;

Bhatia A, Benson DR,

Persing DH, Lodes MJ,

```
The invention relates to an isolated polynucleotide (ACF64435-ACF64733) encoding a Propionibacterium acnes protein. The invention also relates to polypeptides aroaded by the polynucleotides. The invention additionally encompasses expression vectors and host cells comprising a additionally encompasses expression vectors and host cells comprising a polypeptide of the invention; antibodies against polypeptides of the invention; and an isolated T cell population comprising T encompasses on the composition (comprising P. acnes polypeptides of the invention; a manner response specific for a P. acnes to polypeptide and an isolated T cell population comprising T encomposition (comprising P. acnes polypeptides, polymucleotides, antibodies, fusion proteins, T cell populations, or configuration or determining the presence or absence of P. acnes in a patient; and a method for inhibiting the development of P. acnes in a patient; and a method for inhibiting the development of P. acnes in a compression or antigen-presenting cells that express the polympotides, antibodies, fusion proteins, T cell populations or antigen-presenting cells that express the polympotides are useful for diagnosing, preventing or treating acnes to protein. The polymucleotides, polympoticides, polympoticides, or for stimulating an immune response specific for a P. acnes for or stimulating an immune response against P. acnes, or for treating acnes concleted an immune response against P. acnes, or for treating acnes conclete acid hybridisation. The vaccine composition is useful for the stimulation of an immune response against P. acnes, or for treating acnes and the kit is useful for performing a diagnostic assay. The present creading frame) contained within the P. acnes polympotide by an oper for treating actine and the kit is useful for performing a diagnostic assay. The present creading frame) contained within the P. acnes polymotection is useful for my and for this patent did not form part of the princed specification, but was obtained in electronic 
New Propionibacterium acnes polypeptides and polynucleotides encoding the polypeptide, useful for diagnosing, preventing or treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein.
                                                                                                                                                                                                                                                                                               Example 1; SEQ ID NO 24882; 1481pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 73 AA;
```

ö

Gaps

..

2; Indels

Pred. No. 43; 1; Mismatches

6; Conservative

ö

Gaps

.. 0

Length 88; Indels

Score 39; DB 4; Pred. No. 51;

78.0%; 66.7%;

Mismatches

٠, ا

Conservative

Query Match Best Local Similarity ''.^a 6; Conserv?

ö

Q

1 CSVPLTSVC

43 CSIPLTKPC 51

엄

```
Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic polypeptides. The proteins and their associated DNA sequences are used in the treatment, prevention and diagnosis of medical conditions caused by a cones. The disorders include SAPHO syndrome (synovitis, acne, parenes) is also involved in infections of bone, joints and chaophthalmitis. Prevences is also involved in infections of bone, joints and chaophthalmitis. Prevence or absorce of P. acnes in a patient comprises contacting the nervous system, however it is particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the sample with a binding agent that bainds to the proteins of the invention and determining the amount of bound protein in the sample. The colypeptides may be used as antigens in the production of antibodies and determining the amount of bound protein in the sample. The colypeptides and activity of P. acnes production of antibodies and therefore treat P. acnes proteins. These antibodies can be used to downregulate expression and activity of P. acnes polypeptides and therefore treat P. acnes infections. The acnes polypeptides and chargenes in the production of antibodies and chargenes in the production of antibodies and therefore treat P. acnes infections. The acnes polypeptides and chargenes in the production of antibodies and chargenes in the production of antibodies and chargenes in the production, but was chargened in electronic format directly from WIPO at the printed specification, but was obtained in electronic fermat directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                         SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endophthalmitis; bone; joint; central nervous system; ELISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay;
                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Propionibacterium acnes polypeptides and nucleic acids useful for vaccinating against and diagnosing infections, especially useful
                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bhatia A;
      6; Length 73;
                                              2; Indels
                                                                                                                                                                                                                                                                                                                                                     Propionibacterium acnes immunogenic protein #14173.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mitcham JL, Wang SS,
, Jen S, Carter D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        dermatological; osteopathic; neuroprotectant.
  Score 39; DB 6
Pred. No. 43;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; SEQ ID NO 14472; 1069pp; English.
                                                                                                                                                                                                                                 Ą.
                                                                                                                                                                                                                               AAUS3277 standard; protein; 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-APR-2000; 2000US-0199047P.
02-JUN-2000; 2000US-0208841P.
07-JUL-2000; 2000US-0216747P.
  78.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-APR-2001; 2001WO-US012865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Skeiky YAW, Persing DH, M
L'maisonneuve J, Zhang Y,
                                                                                                                                                                                                                                                                                                             (first entry)
                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Propionibacterium acnes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating acne vulgaris.
                                                                                                                              CRAPITSVC 43
                                                                                      σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001-616774/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CORI-) CORIXA CORP.
Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                      CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAS59559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200181581-A2
                                                                                                                                                                                                                                                                                                               27-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-2001.
                                                                                                                                                                                                                                                                       AAU53277;
                                                                                                                            35
                                                                                                                                                                                                          RESULT 6
                                                                                                                          유
                                                                                      ò
```

Propionibacterium acnes predicted ORF-encoded polypeptide #14472.

(first entry)

20-0CT-2003

ABM49796;

ABM49796 standard; protein; 88 AA.

RESULT 7 ABM49796 Acne vulgaris; antiseborrhoeic; dermatological; antibacterial; immunostimulant; immune response; vaccine.

Propionibacterium acnes.

WO2003033515-A1.

24-APR-2003

¥

Sequence 88

```
the invention relates to an institute purjuncible condending also relates to polypeptides according a propionibacterium acnes polypeptides. The invention also relates to polypeptides encoded by the polynucleotides (ABM35624-ABM64536) and to immunogenic fragments of P. acnes polypeptides The invention additionally encompasses expression vectors and host cells comprising a colynucleotide of the invention; an immunogenic fragments of polypeptide of the invention; an immunogenic fragment of polynucleotide of the invention; an immune response specific for a P. acnes polypeptide and an isolated T cell population comprising P. acnes polypeptides, or polynucleotides, antibodies, fusion proteins, T cell populations, or antigen-presenting cells that express the polypeptide); a method and kit for detecting or determining the presence or absence of P. acnes in a patient. The P. acnes polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations or antigen-presenting cells that express the corposition of P. acnes in a patient. The P. acnes polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations or antigen-presenting cells that express the corposition of P. acnes in a patient. The P. acnes polypeptides, preventing or treating acnes to protein. The polynucleotides can also be used as probes or primers for contained acid hybridistation. The vaccine composition is useful for the vaccine composition is useful for the sequence contained within the P. acnes polynucleotides of the sequence trepresents a polypeptide predicted to be encoded by an ORF (open creating frame) contained within the P. acnes polynucleotides of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly
                                                                                                                  New Propionibacterium acnes polypeptides and polynucleotides encoding the polypeptide, useful for diagnosing, preventing or treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to an isolated polynucleotide (ACF64435-ACF64733)
                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; SEQ ID NO 14472; 1481pp; English.
N-PSDB; ACF64488,
```

Maisonneuve JL; Jones R, Carter D;

Persing DH, Bhatia A, Lodes MJ, Benson DR,

Zhang Y, Wang S, Jen S, Lodo Barth B, Vallieve-Douglass J;

WPI; 2003-381789/36.

Skeiky YAW, nq S, Jen S,

Mitcham JL,

(CORI-) CORIXA CORP.

11-OCT-2002; 2002WO-US032727. 15-OCT-2001; 2001US-00978825.

```
The invention relates to a recombinant DNA construct comprising a promoter functional in a plant cell, where the promoter is positioned to promoter functional in a plant cell, where the promoter is positioned to promote a capression of a polymucleotide encoding a polypeptide from a microbial source. The invention also relates to a transformed plant comprising the recombinant DNA construct and a method of producing a transformed plant to such as maize or soybean. The method of producing a transformed plant having an improved property comprises transforming a plant with the recombinant DNA construct and growing the transforming plant properties. The recombinant DNA construct is useful for improving plant properties. The recombinant DNA construct is useful for producing plants with improved plant properties, e.g. improved cold, heat or drought tolerance, tolerance to herbicides, extreme osmotic conditions, pathogens or pests, increased resistance to plant disease, better growth rate by modification of the cell cycle pathway with plant growth regulators, increased rate of homologous recombination, modified seed oil or protein yield and/or
                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New recombinant DNA construct comprising a promoter positioned to provide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for expression of a polynucleotide encoding a polypeptide from a microbial source, useful for producing plants with improved properties.
                                                                                                                                                                                                                                                                                                                                                                                                               Recombinant DNA construct; transformed plant; improved plant property; cold tolerance; heat tolerance; drought tolerance; herbicide; osmosis; pathogen tolerance; peet tolerance; plant disease resistance; cell cycle pathway modification; plant growth regulator; homologous recombination; seed oil yield; protein yield; carbohydrate; nitrogen; phosphorus; photosynthesis; lignin; galactomannan; bacterial polypeptide.
                                                                                                           Gaps
                                                                                                           ;
0
                                                                      Length 88;
                                                                                                           2; Indels
from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen X, Goldman BS;
                                                                        9
                                                                    DB
51;
                                                                                                         1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID NO 1081; 122pp; English
                                                                        Score 39;
Pred. No.
                                                                                                                                                                                                                                                                     ADN18428 standard; protein; 432 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cao Y, Hinkle GJ, Slater SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-FEB-2003; 2003US-00369493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-FEB-2002; 2002US-0360039P
                                                                      78.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                               Bacterial polypeptide #1081.
                                                                                                                                                                                                                                                                                                                                            02-DEC-2004 (first entry)
                                                                                                           6; Conservative
                                                                                                                                                                 ||:||| |
43 CSIPLTKPC 51
                                                                                                                                             1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAO Y.
HINKLE G J.
SLATER S C.
CHEN X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2004-061375/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GOLD/) GOLDMAN B S.
                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003233675-A1
                                      Sequence 88 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-DEC-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacteria.
                                                                                                                                                                                                                                                                                                         ADN18428;
                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAOY/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HINK/)
(SLAT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHEN/)
                                                                                                       Matches
                                                                                                                                                                                                                                RESULT 8
ADN18428
SXS
                                                                                                                                             ઠ
                                                                                                                                                                          셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic polypeptides. The proteins and their associated DNA sequences are used in the treatment, prevention and diagnosis of medical conditions caused by P. acnes. The disorders include SAPHO syndrome (synovitis, ane, pustulosis, hypertosis and osteomyelitis), uveitis and endophthalmitis. P. acnes is also involved in infections of bone, joints and the central nervous system, however it is particularly involved in the inflammatory lesions associated with acne vulgaris. A method for detecting the presence or absence of P. acnes in a patient comprises contacting a sample with a binding agent that binds to the proteins of the invention and determining the amount of bound protein in the sample. The polypeptides may be used as antigens in the production of antibodies
content, improved yield by modification of carbohydrate, nitrogen or phosphorus use and/or uptake, by modification of photosynthesis or by providing improved plant growth and development under at least one stress condition, improved lighin production or improved galactomannan production. This sequence represents a bacterial polypeptide used in the scope of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endophthalmitis; bone; joint; central nervous system; ELISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay;
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Propionibacterium acnes polypeptides and nucleic acids useful for vaccinating against and diagnosing infections, especially useful for
                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bhatia A;
                                                                                                                                                                                                                  Score 39, DB 8; Length 432;
Pred. No. 2.4e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Propionibacterium acnes immunogenic protein #4790.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mitcham JL, Wang SS,
, Jen S, Carter D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dermatological; osteopathic; neuroprotectant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; SEQ ID NO 5089; 1069pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU43894 standard; protein; 101 AA.
                                                                                                                                                                                                                78.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-APR-2000; 2000US-0199047P.
02-JUN-2000; 2000US-0208841P.
07-JUL-2000; 2000US-0216747P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-APR-2001; 2001WO-US012865.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                Ouery Match
Best Local Similarity 77.0
77.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Persing DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Propionibacterium acnes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treating acne vulgaris.
                                                                                                                                                                                                                                                                                                                                  389 CVVPLTSFC 397
                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-616774/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L'maisonneuve J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAS59521.
                                                                                                                                                                              Sequence 432 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200181581-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Skeiky YAW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-2001,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU43894;
                                                                                                                                                                                                                                                                                                                                                                                                                  AAU43894
                                                                                                                                                                                                                                                                                                                                                                                              RESULT
        8888888888888
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                  셤
```

```
The invention relates to an isolated polynucleotide (ACF64435-ACF64733) encoding a Propionibacterium acnes protein. The invention also relates to polypeptides encoded by the polynucleotides (ARM35624-ARM64536) and to immunogenic fragments of P. acnes polypeptides. The invention additionally encompasses expression vectors and host cells comprising a additionally encompasses expression vectors and host cells comprising a compruncleotide of the invention; antibodies against polypeptides of the invention; tusion proteins comprising a polypeptide of the invention, a method for stimulating an immune response specific for a P. acnes polypeptide and an isolated T cell population comprising P acnes polypeptides, via this method; a vaccine composition (comprising P acnes polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations, or antigen-presenting cells that express the polypeptide); a method and kit for for a detecting or determining the presence or absence of P. acnes in a patient; and a method for inhibiting the development of P. acnes in a patient. The P. acnes polypeptides, polynucleotides, antibodies, fusion
                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New Propionibacterium acnes polypeptides and polynucleotides encoding the polypeptide, useful for diagnosing, preventing or treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein.
                                         aB
specific for P. acnes proteins. These antibodies can be used to downregulate expression and activity of P. acnes polypeptides and therefore treat P. acnes infections. The antibodies may also be used as diagnostic agents for determining P. acnes presence, for example, by enzyme linked immunosorbent assay (ELISA). Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Maisonneuve JL;
Jones R, Carter D;
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Propionibacterium acnes predicted ORF-encoded polypeptide #5089.
                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Acne vulgaris; antiseborrhoeic; dermatological; antibacterial;
                                                                                                                                                                                                          Length 101;
                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bhatia A,
Benson DR,
                                                                                                                                                                                                                4,
                                                                                                                                                                                                            Score 38; DB
Pred. No. 86;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; SEQ ID NO 5089; 1481pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunostimulant; immune response; vaccine
                                                                                                                                     ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Persing DH,
Lodes MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                           ABM40413 standard; protein; 101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   wang S, Jen S, Low
Vallieve-Douglass J;
                                                                                                                                                                                                        76.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-OCT-2002; 2002WO-US032727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-OCT-2001; 2001US-00978825.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-OCT-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Skeiky YAW,
ang S, Jen S,
                                                                                                                                                                                                                                                    6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Propionibacterium acnes
                                                                                                                                                                                                                                                                                                                              CNLPLTLVC 24
                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2003-381789/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                        1 CSVPLTSVC
                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ACF64450
                                                                                                                                                                           Sequence 101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003033515-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mitcham JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhang Y,
Barth B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABM40413;
                                                                                                                                                                                                                                                                                                                                16
                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                     888888888888
                                                                                                                                                                                                                                                                                                                            임
```

```
ö
                                                                                                                                                                                                                                                                                                   ..
0
       polypeptides are useful for diagnosing, presenting veries under the useful for diagnosing, preventing of treating acne vulgaris, or for stimulating an immune response specific for a P. acnes protein. The polynucleotides can also be used as probes or primers for nucleic acid hybridisation. The vaccine composition is useful for the stimulation of an immune response against P. acnes, or for treating acne, and the kit is useful for performing a diagnostic assay. The present sequence represents a polypeptide predicted to be encoded by an ORF (open reading frame) contained within the P. acnes polynucleotides of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
T cell populations or antigen-presenting cells that express the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to an isolated polypeptide of human protein phosphatase 13.31 and its associated polynucleotide. The sequences are used in diagnosis and treatment of malignant tumour, embryonic developmental abnormality and autoimmune disease and for studying human antisenescence. This sequence represents human protein phosphatase 13.31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; protein phosphatase 13.31; enzyme; malignant tumour; cancer; embryonic developmental abnormality; autoimmune disease; antisenescence; gynaecological; cytostatic; immunosuppressant; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human protein phosphatase 13.31 and encoding polynucleotide, used in diagnosis and treatment of malignant tumors, autoimmune disease and embryonic development abnormality.
                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76.0%; Score 38; DB 5; Length 121; 66.7%; Pred. No. 1e+02; ive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                  6; Length 101;
                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human protein phosphatase 13.31 polypeptide.
                                                                                                                                                                                                                                                                76.0%; Score 38; DB 66.7%; Pred. No. 86;
                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BIOW-) BIOWINDOW GENE DEV INC SHANGHAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU74551 standard; protein; 121 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 30; 34pp; Chinese.
                                                                                                                                                                                                                                                                                                   2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2001; 2001WO-CN001118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUL-2000; 2000CN-00117017.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                  Local Similarity 66.7
nes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                       24
                                                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-172153/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                        1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                         CNLPLTLVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; ABK14072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 121 AA;
                                                                                                                                                                                                                                  Sequence 101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200212457-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xie Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU74551;
                                                                                                                                                                                                                                                                                                                                                                           16
                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mao Y,
                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU74551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                          ò
```

209 CSVPITDPC 217

셤

```
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed in diagnostics as expressed sequence tags for identifying expressed attracts the sectore normal cativity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a colypopide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders of sites expressing (II). (I) and (II) are useful for treating disorders convolving aberrant protein expression or biological activity. The capposible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WHDO at the printed specification, but was obtained in the way in the printed specification, but was obtained in the printed produces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                   Human; chromosome mapping; gene mapping; gene therapy, forensic, food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 20; SEQ ID NO 41834; 103pp; English.
                                                                                                                                                                                                                                                              Novel human diagnostic protein #11466.
                                                                                                                                      ABG11475 standard; protein; 225 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAR-2001; 2001WO-US008631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAR-2000; 2000US-00540217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-AUG-2000; 2000US-00649167
                                                                                                                                                                                                                    18-FEB-2002 (first entry)
                    105 CSVPITDPC 113
CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-639362/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAS75662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 225 AA;
                                                                                                                                                                                                                                                                                                                                                                                                      WO200175067-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            biodiversity.
                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                              11-OCT-2001.
                                                                                                                                                                              ABG11475;
                                                                                                  RESULT 12
                                                                                                                   ઠે
                                   셤
```

```
Human; protease; protease inhibitor; protease and protease inhibitor; PPIM; identification; diagnosis; anti-human immunodeficiency virus; HIV; antidabetic; immunosimulant; immunosomulator; antiinflammatory; antithyroid; immunosuppressive; nephrotropic; antisort; thyromimetic; cytostatic; antibacterial; fungicide; protozoacide; antiarteriosclerotic; antiparatic; virucide; hepatotropic; gene therapy; autoimmune disorder; inflammatory disorder; AIDS; DiGeorge's syndrome; severe combined immunodeficiency disorder; AIDS; DiGeorge's syndrome; Cushing's disease; Addison's disease; SCID; Chediak-Higashi syndrome; Cushing's disease; diabetees mellitus; Good pasture's syndrome; infection; Grave's disease; Hashimoto's thyroiditis; Sjogren's syndrome; cancer; Werner's syndrome; call proliferative disorder; arteriosclerosis; cirrhosis; hepatitis; psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Lu DAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Baughn MR, Azimzai Y,
                                                                        Human protease and protease inhibitor PPIM-26,
                                                                                                                                                                                                                                                                                                                                                                                                                                       Lal P, Tang YT, Bandman O,
AAB74693 standard; protein; 742 AA.
                                                                                                                                                                                                                                                                                                                                                  09-AUG-2000; 2000WO-US021878.
                                                                                                                                                                                                                                                                                                                                                                                        99US-0160807P.
                                                                                                                                                                                                                                                                                                                                                                           99US-0147986P
                                                                                                                                                                                                                                                                                                                                                                                                               (INCY-) INCYTE GENOMICS INC.
                                                 12-JUN-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-202760/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAF81739
                                                                                                                                                                                                                                                                                                   WO200110903-A2.
                                                                                                                                                                                                                                                                                                                                                                        09-AUG-1999;
                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                        21-OCT-1999;
                                                                                                                                                                                                                                                                                                                            15-FEB-2001.
                        AAB74693;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Yue H,
Yang J;
```

AAPB1714 to AAPB1740 encode the human proteases and protease inhibitors

(PPIMS) given in AAB74668 to AAB74694. The PPIMS can have activities such

as: anti-human immunodeficiency virus (HIV); antidiabetic; antithyroid;
immunostimulant; immunodeficiency virus (HIV); antidiabetic; antithyroid;
communostimulant; immunodeficiency virus (HIV); antidatherosphressive;
compined, antipgout; thyromimetic; cytostatic; antiatheroscherial;
compicide; protozoacide; antiarteriosclerotic; antiatherosclerotic;
virucide; protozoacide; antiarteriosclerotic; antiatherosclerotic;
virucide; antipgoriatic; and hepatotrophic. PPIM polymucleotide and
cof autoimmune/inflammatory disorders such as AIDS, DiGeorge's syndrome,
combined immunodeficiency disease (SCID), Chediak-Higashi
syndrome, Cushing's disease, Addison's disease, autoimmune thyroiditis,
crohn's disease, diabetes mellitus, Good pasture's syndrome, gout,
crohn's disease, Hashimoto's thyroiditis, Sjogren's syndrome, gout,
crohn's diseases, Hashimoto's thyroiditis, Sjogren's syndrome, gout,
crohn's diseases, Hashimoto's thyroiditis, protozoal, and helminthic
crome, viral, bacterial, fungal, parasitic, protozoal, and helminthic
cinfections and cell proliferative disorder such as arteriosclerosis,
atherosclerosis, cirrhosis, hepatitis, psoriasis and cancer. PPIM
coplymucleotide sequences can be used in somatic or germling
chybridisation probse useful in mapping the naturally occurring genomic
sequences and in molecular biology techniques

New protease (inhibitors) useful for diagnosis and treatment of autoimmune/inflammatory disorders such as acquired immunodeficiency syndrome, Cushing's disease, Addison's disease and cell proliferative

Claim 1; Page 114-115; 134pp; English.

disorders such as cancer.

CSVPLTSVC 9

ö

Gaps

; 0

76.0%; Score 38; DB 4; Length 225; 66.7%; Pred. No. 1.9e+02; ive 1; Mismatches 2; Indels

Best Local Similarity 66.7 Matches 6; Conservative

Query Match

```
AADD05579-AADD05658 represent cDNAs corresponding to 28 human secreted protein genes and AAED1770-AAED1849 represent the proteins they encode. AAED1860 represent human secreted protein fragments or variants. The genes and their secreted proteins are secul for preventing, variants or ameliorating medical conditions, e.g., by protein or gene therapy. Pathological conditions can be diagnosed by determining the amount of the new protein in a sample or by determining the presence of mutations in the new genes. Specific uses are described for each of the 28 genes, based on the tissues in which they are most highly expressed, and include developing products for the diagnosis or treatment of proliferative
                                                                 ö
                                                                                                                                                                                                                                                                                                                                                              Human; secreted protein; proliferative disorder; cancer; tumour; foetal abnormality; developmental abnormality; haematopoietic disorder; immune system disorder; AIDS; autoimmune disease; rheumatoid arthritis; inflammation; allergy; neurological disorder; Alzheimer's disease; Parkinson's disease; cognitive disorder; schizophrenia; asthma; skin disorder; psoriasis; sepsis; diabetes; atherosclerosis; cardiovascular disorder; angiogenic disorder; kidney disorder; gastrointestinal disorder; pregnancy-related disorder; gene therapy; endocrine disorder; infection; wound healing; vulnerary; cell culture; chemotaxis; food additive; chromosome 17; binding partner identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New nucleic acid molecules encoding human secreted proteins, used in preventing, treating or ameliorating a disorder, e.g. Alzheimer's and Parkinson's diseases and cancers.
                                                                 Gaps
                                                                   .;
0
                                                                                                                                                                                                                                                                                                                               Human gene 13 encoded secreted protein HDPNW93, SEQ ID NO:103.
                               Length 742;
                               Score 38; DB 4; Length 742
Pred. No. 6.1e+02;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20. .802
/label= Human_mature_secreted_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Young PE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .19
/label= Signal_peptide
20. .802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 11; Page 492-494; 567pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Komatsoulis GA, Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                          AAE01782 standard; protein; 802 AA
                               76.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-NOV-2000; 2000WO-US030628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-NOV-1999; 99US-0164744P.
30-JUN-2000; 2000US-0215140P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                  17-JUL-2001 (first entry)
                                                                   Conservative
                                                                                                                        726 CSVPITDPC 734
                                                                                                      1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-316491/33.
                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAD05591.
Sequence 742 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200134627-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-MAY-2001.
                                                                     .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ruben SM,
                                                                                                                                                                                                                                                             AAE01782;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
                                                                   Matches
                                                                                                                                                                                           RESULT 14
                                                                                                                                                                                                          셤
                                                                                                       8
```

```
disorders, cancer, tumours, foetal and developmental abnormalities,

cancer, cancer, diseases of the immune system, AIDS, autoimmune

cancerses (e.g., rheumatoid arthritis), inflammation, allergies,

cancological disorders (e.g., Alzheimer's disease, Parkinson's disease),

cognitive disorders, schizophrenia, asthma, skin disorders (e.g.,

cognitive disorders, kidney disorders, cardiovascular disorders,

angiogenic disorders, kidney disorders, gastrointestinal disorders,

programoy-related disorders, endocrine disorders, and infections. The

proteins can also be used to aid wound healing and epithelial cell

cropileration, to prevent skin aging due to sumburn, to maintain organs

cropileration, to resuporting cell culture of primary tissues,

before transplantation, for supporting cell culture of primary tissues,

cropicate tissues, to identify their cognate ligands or binding

cropicate of the invention can be used as a food additive or

protein of the invention can be used in alleviating symptoms associated

cropicate of the invention can be used in alleviating symptoms associated

with the disorders mentioned above, and in disapostic immunoassay or enzyme linked immunosorbent assay (ELISA). The

cropication of the invention and bove, and in disapostic immunoassay or enzyme a human secreted protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New fusion protein for treating disease e.g. diabetes comprises an albumin fused to a therapeutic protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein; therapeutic protein X; human albumin; HA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          haematopoietic disorder; neural disorder; connective disorder; cytostatic; antiinfertility; antiinflammatory; antiulcer; immunomodulator; anti-HIV; antidiabetic; haemostatic; nootropic; neuroprotective; antiparkinsonian; antimicrobial; neuroleptic; osteopathic; antiarthritic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                              Length 802;
                                                                                                                                                                                                                                                                                                                                                                                                                            76.0%; Score 38; DB 4; Length 802
66.7%; Pred. No. 6.6e+02;
iive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human serum albumin, HSA; cancer; reproductive disorder;
digestive disorder; immune disorder; endocrine disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 1035-1037; 2102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABG64141 standard; protein; 802 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human albumin fusion protein #816.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-APR-2000; 2000US-0229358P.
25-APR-2000; 2000US-0199384P.
21-DEC-2000; 2000US-0256931P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-APR-2001; 2001WO-US011988.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Haseltine WA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 786 CSVPITDPC 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-010886/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
hes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CSVPLTSVC
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 802 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200177137-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Albumin fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG64141;
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG64141
            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

The present invention relates to albumin fusion proteins comprising a therapeutic protein X and human albumin (HA, also known as human serum albumin, HSA). The proteins are useful for treating a disease or disorder that may be modulated by therapeutic protein X. The albumin extends the shelf-life of protein X, and may increase its biological in vitro/in vivo activity. The protein is useful for treating and diagnosing disorders anchieve, The protein is useful for treating and diagnosing disorders disease, ulcerative colitis, immune disorders (e.g. acquired immunodeficiency syndrome, AlDS), endocrine disorders (e.g. diabetes), hammatopoletic disorders, neural disorders (e.g. Alzheimer's, hammatopoletic disorders, neural disorders (e.g. Alzheimer's, meningitis, schizophrenia), and connective disorders (e.g. osteoporosis, arthritis). ABG63326-ABG65518 represent albumin fusion proteins of the invention Sequence 802 AA; 888888888888888888888888

Gaps ö Query Match 76.0%; Score 38; DB 5; Length 802; Best Local Similarity 66.7%; Pred. No. 6.6e+02; Matches 6; Conservative 1; Mismatches 2; Indels

ö

||||:| | 786 CSVPITDPC 794 1 CSVPLTSVC 9

ઠે g

Search completed: April 1, 2005, 09:18:18 Job time : 69.9315 secs

THIS PAGE BLANK (USPTO)

Scoring table:

Searched:

Database

Perfect score:

Run on:

Sequence:

```
Sequence 243236, Sequence 23629, A Sequence 31802, A Sequence 410, App Sequence 324, App Sequence 277, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477, App Sequence 477,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INCOMINATION:
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VECF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-01-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
S US-10-424-599-169061
S US-10-424-599-276082
S US-10-425-114-56269
S US-10-425-114-56269
S US-10-425-114-56269
S US-10-437-963-160508
US-10-437-963-160508
US-00-764-870-124
US-00-764-870-134
US-00-764-853-451
US-09-764-853-451
US-09-978-295A-477
US-09-978-295A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-195A-477
US-09-978-4174-477
US-09-978-4174-477
US-09-978-4174-477
US-09-978-4174-477
US-09-978-4174-477
US-09-978-4174-477
US-09-978-4174-477
US-09-98-834A-477
US-09-978-413A-477
US-09-978-413A-477
US-09-978-413A-477
US-09-978-413A-477
US-09-978-413A-477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 50; DB 9; L
100.0%; Pred. No. 1.3e+06;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-10

Sequence 10, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:
  9; Conservative
                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 9, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CSVPLTSVC
 RESULT 2
US-10-424-599-241613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-761-636A-10
  \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
  ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 241613,
Sequence 241616,
Sequence 246581,
Sequence 54625, A
Sequence 174316,
Sequence 205890,
Sequence 69391, A
Sequence 23910,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081, Ap
51825, A
888, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10, Appl
Sequence 241613,
                                                                                                       (without alignments)
13.493 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1
Sequence 5
Sequence 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                                                                                         April 1, 2005, 09:26:18; Search time 221.178 Seconds
                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-424-599-241613
US-10-424-599-241616
US-10-424-599-24625
US-10-767-701-54625
US-10-424-599-174316
US-10-424-599-174316
US-10-424-599-205890
US-10-437-963-133870
US-10-437-963-133870
US-10-437-963-1081
US-10-369-493-1081
US-10-369-493-1081
US-10-76-9833-245-888
                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-761-636A-10
                                                                                                                                                                                                                                       1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                OM protein - protein search, using sw model
                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                         US-09-761-636A-10
50
1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
115
115
115
115
115
115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length DB
                                                                                                                                                                     CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1154
1194
178
1149
1359
5549
63
63
432
67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0
84.0
84.0
82.0
82.0
82.0
82.0
78.0
78.0
76.0
```

ö

Score

Result Š 02444444620

```
Sequence 54625, Application US/10767701

Sequence 54625, Application US/20340172684A1

Fublication No. US20040172684A1

SERBEAL INPORMATION:

APPLICANT: Kovalic, David K.

APPLICANT: Cao, Yongwei

TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof For Plant Improvement

FILE REFERENCE: 38-21(53535) B

CURRENT APPLICATION NUMBER: US/10/767,701

CURRENT FILING DATE: 2004-01-29

NUMBER OF SEQ ID NOS: 63128
                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 149;
                                                                                                                                                                                                                   Length 78;
                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                           FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_28570C.1.pep
US-10-424-599-206581
                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 41; DB 16;
Pred. No. 21;
                                                                                                                                                                                                                   Score 41; DB 1
Pred. No. 11;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , OTHER INFORMATION: Clone ID: 14570883.pep
US-10-767-701-54625
FILE REFERENCE: 38-21(53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 206581
LENGTH: 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82.0%; S
100.0%;
                                                                                                                                                                                                                 Query Match 82.0%;
Best Local Similarity 66.7%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Sorghum bicolor
                                                                                                                                                                                                                                                                                                                || |:||:|
57 CSSPITSIC 65
                                                                                                         TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                         1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11 CSVPLTSV 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Glycine max
FEATURE:
NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CSVPLTSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                              APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: About K
APPLICANT: About Vibra
APPLICANT: About Vibra
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPRENCE: 38-21 (53223) B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT APPLICATION NUMBER: US/10/428
SEQ ID NOS: 285684
SEQ ID NO 241613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 206581, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Zhou Yihua
APPLICANT: Canou Yihua
APPLICANT: Canou Yihua
APPLICANT: Canou Yihua
APPLICANT: Canou Yihua
APPLICANT: APPLICANT: And Uses Inverved to the Molecules and Other Molecules Associated With TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                             Query Match 84.0%; Score 42; DB 15; Length 154; Best Local Similarity 77.8%; Pred. No. 15; Matches 7; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.0%; Score 42; DB 15; Length 194; 77.8%; Pred. No. 18; 1; Indels tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Clone ID: PAT_MRT3847_60206C.1.pep
US-10-424-599-241616
                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Clone ID: PAT_MRT3847_60203C.1.pep
US-10-424-599-241613
Sequence 241613, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 77.8
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22 CSSPITSVC 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  66 CSSPITSVC 74
                                                                                                                                                                                                                                                                                      ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-424-599-206581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
```

g

ò 엄

QQ

```
, APPLICANT: Way, Wei

; APPLICANT: Boukharov, Andrey A.

; APPLICANT: Boukharov, Andrey A.

; APPLICANT: Barbazuk, Brad

; APPLICANT: Li, Ping

; TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With

; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

; TITLE OF INVENTION: 18-21(53221)B

; CURRENT FAPLICATION WHOBER: US/10/437,963

; NUMBER OF SEQ ID NOS: 204966

; SEQ ID NO 133870

; LENGTH: 883

; TYPPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 276(01, Application US/10424599)
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21 (5323.9)
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 276101
                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 883;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 63;
                                  Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Clone ID: PAT_MRT3847_91339C.1.pep
US-10-424-599-276101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Clone ID: PAT_MRT4530_3569C.1.pep
US-10-437-963-133870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82.0%; Score 41; DB 16; I
100.0%; Pred. No. 1.2e+02;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78.0%; Score 39; DB 15; 66.7%; Pred. No. 20; tive 2; Mismatches 1;
            Pred. No. 78;
2; Mismatches
                                                                                                                                                                                                              Sequence 133870, Application US/10437963
Publication No. US20040123343A1
GENERAL INFORMATION:
APPLICANT: La ROSa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
          66.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 66.74
Best Local 6; Conservative
                                6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Oryza sativa
                                                                                                          82 CSSPITSIC 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             655 CSVPLTSV 662
                                                                        1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CSVPLTSV 8
        Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                US-10-437-963-133870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-424-599-276101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                          ò
                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                             ASSOLATION OF THE REFERENCE: 38-21(5323)

SEQUENCE 205990, Application US/10424599

SEQUENCE 205990, Application US/10424599

SEQUENCE 205990, Application US/10424599

SEQUENCE 20590, Application US/10424599

APPLICANT: La Rosa Thomas J

APPLICANT: Cao Yongwei

APPLICANT: Cao Yongwei

TITLE OF INVENTION: Elants and Uses Thereof for Plant Improvement

FILE REFERENCE: 38-21(5323) B

CURRENT APPLICATION NUMBER: US/10/424,599

CURRENT APPLICATION NUMBER: US/10/424,599

WUMBER OF SEQ ID NOS: 285684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Zhou, Yihua APPLICANT: Zhou, Yihua APPLICANT: Zhou, Yihua APPLICANT: Screen, Steven E APPLICANT: Screen, Steven E APPLICANT: Cao, Yongwei TITLE OF INVENTION: Plants and Uses Thereof for Plants and Uses Thereof for Plants and Uses Thereof for Plants and Uses Thereof for Plant Improvement FILE REFERENCE: 38-21(53313)8 CURRENT FILING DATE: 2003-04-28 NUMBER OF SEQ ID NOS: 73128 SEQ ID NO 63391
                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                  15; Length 359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82.0%; Score 41; DB 15; Length 549; 66.7%; Pred. No. 76; 1:ve 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82.0%; Score 41; DB 15; Length 565;
                                                                                                                                                                        0; Indels
                                          FEATURE:

CTHER INFORMATION: Clone ID: PAT_MRT3847_128426C.1.pep

US-10-424-599-174316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Clone ID: PAT_MRT3847_27947C.1.pep
US-10-424-599-205890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Clone ID: UC-GMROFIC111B04_FLI.pep
US-10-425-114-69391
                             OTHER INFORMATION: unsure at all Xaa locations
                                                                                                                 82.0%; Scor.
100.0%; Pred. No. 50,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 69391, Application US/10425114
Publication No. US20040034888A1
GENERAL INFORMATION:
                                                                                                            Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 60...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Liu, Jingdong
                                                                                                                                                                                                                                        151 CSVPLTSV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      66 CSSPITSIC 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Glycine max
LOCATION: (1) . (359)
                                                                                                                                                                                                              1 CSVPLTSV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-425-114-69391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
```

ò ద ö

Gaps

.; 0

2; Indels

Length 802;

```
76.0%; Score 38; DB 11; 66.7%; Pred. No. 3.6e+02; tive 1; Mismatches 2;
          FILE REFERENCE: PF546PCT
CURRENT APPLICATION NUMBER: US/09/833,245
CURRENT FILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: 60/229, 358
PRIOR FILING DATE: 2000-04-12
PRIOR PILING DATE: 2000-12-21
PRIOR PILING DATE: 2000-12-21
PRIOR APPLICATION NUMBER: 60/199, 384
PRIOR PILING DATE: 2000-04-25
NUMBER: OF SEQ ID NOS: 2267
SEQ ID NO 888
LENGTH: 802
TITLE OF INVENTION: Albumin Fusion Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 169061, Application US/10424599; Publication No. US20040031072A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 66.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          786 CSVPITDPC 794
                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
US-09-833-245-888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 CSPPLTATC 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-424-599-169061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                   Sequence 1081, Application US/10369493

Sequence 1081, Application US/10369493

Publication No. US20030233675A1

GENERAL INFORMATION:

APPLICANT: Chor, Yongword

APPLICANT: Slater, Steven C.

APPLICANT: Goldman, Barry S.

APPLICANT: Chor, Xianfeng

TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF TITLE OF INVENTION: EARTS WITH IMPROVED PROPERTIES

TITLE OF INVENTION: BARYS WITH IMPROVED PROPERTIES

TITLE OF INVENTION: EARTS WITH IMPROVED PROPERTIES

CURRENT APPLICATION NUMBER: US/10/369,493

CURRENT FILING DATE: 2003-02-28

PRIOR APPLICANTION NUMBER: US 60/360,039

PRIOR SEQ ID NOS: 47374

SEQ ID NO 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
US-10-767-701-51825
; Sequence 51825. Application US/10767701
; Publication No. US20040172684A1
; GENERAL INFORMATION:
; APPLICANT: Edou, Yihua
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Plante and Uses Thereof For Plant Improvement
; FILE REFERENCE: 38-21 (5335) B
; CURRENT APPLICATION NUMBER: US/10/767,701
; NUMBER OF SEQ ID NOS: 63128
; SEQ ID NO 51825
; LENGTH: 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 39; DB 15; Length 432;
Pred. No. 1.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76.0%; Score 38; DB 16; Length 67; 66.7%; Pred. No. 32; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , OTHER INFORMATION: Clone ID: LIB5048-009-R1-XP1-B3.pep
US-10-767-701-51825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
US-09-833-245-888
Sequence 888, Application US/09833245
Publication No. US20040010134A1
GENERAL INFORMATION:
APPLICANT: Human Genome Sciences, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT ORGANISM: Methanococcus jannaschii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 77.8
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 76.0
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  389 CVVPLTSFC 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56 CSSPLTALC 64
CSSPLSSIC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CSVPLTSVC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-369-493-1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
```

```
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: Rovalic David K
APPLICANT: Shouth and the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-424-599-276082

US-10-424-599-276082

Sequence 276082, Application US/10424599

Publication No. US20040031072A1

GENERAL INFORMATION:

APPLICANT: La Rosa Thomas J

APPLICANT: AND SON US APPLICANT:

APPLICANT: AND SON WITHAN

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

FILLE REFERENCE: 38-21(53223)B

CURRENT APPLICATION NUMBER: US/10/424,599

CURRENT FILING DATE: 2003-04-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_123677C.1.pep
US-10-424-599-169061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 74.0%; Score 37; DB 15; Best Local Similarity 66.7%; Pred. No. 58; Matches 6; Conservative 1; Mismatches 2;
```

```
; NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 276082
LENGTH: 95
; TYPE: PRT
; ORGANISM: Glycine max
; FRATURE:
; NAME/KEY: unsure
; COTHER INFORMATION: unsure at all Xaa locations
; PATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_91321C.1.pep
US-10-424-599-276082

Query Match
Best Local Similarity 66.7%; Pred. No. 67;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps

Qy 1 CSVPLTSVC 9

L CSVPTGC 9

Search Completed: April 1, 2005, 10:36:34
JOb time: 222.178 secs
```

THIS PAGE BLANK (USPTO)

```
hypothetical prote
hypothetical prote
hypothetical 18K p
hypothetical 18K p
hypothetical prote
hypothetical prote
hypothetical prote
hypothetical prote
phospholipase A2 (
metalloproteinase
metalloproteinase
hypothetical prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypothetical prote
hypothetical prote
hypothetical prote
hypothetical prote
probable lpqB prot
cation-transportin
probable component
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical prote
hypothetical prote
collagenase inhibi
hypothetical prote
hypothetical prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical prote
probable membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical prote
hypothetical prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4-hydroxybenzoate
                                                                April 1, 2005, 06:17:29 ; Search time 15.9726 Seconds (without alignments) 66.262 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                              283416 segs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                            protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A72466
1147061
1729311
174944
174644
174644
174644
174644
174644
174644
173623
1729234
1734239
1734239
1736814
1746813
17664707
17613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JV0046
T16392
T46975
C64367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T20160
B72727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G71496
E72785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A59047
A35685
                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PQ0506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381696
                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                               US-09-761-636A-7
61
1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match Length
                                                                                                                                                                                                                                                                                                                           PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              663339
663339
6623339
660077
660077
660077
660077
660077
                                                                                                                                                                                                                                                                                                                                                  2 K 4
                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
                                                                                                                            Perfect score:
                                           OM protein -
                                                                                                                                        Sequence:
                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                            Database
                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
```

30
----

Gaps

ö

Query Match 63.9%; Score 39; DB 2; Length 169; Best Local Similarity 60.0%; Pred. No. 12; Matches 6; Conservative 2; Mismatches 2; Indels

1 CISVPLTSVP 10

à

~

ö

Gaps

ö

1; Indels

Length 1062;

7

```
probable membrane protein YDR539w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein D3703.2
C;Species: Saccharomyces cerevisiae
C;Bacels: 10-Apr-1996 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
C;Accession: S62018
R;Dietrich, F.S.; Mulligan, J.; Allen, E.; Araujo, R.; Aviles, E.; Berno, A.; Carpenter, H.; Lin, D.; Mosedale, D.; Nakahara, K.; Namath, A.; Oefner, P.; Oh, C.; Petel, F.X.; Roł
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;MOJECUIE tYPE: DNA
A;Residues: 1-503 <DIE>
A;Cross-raferences: UNIPROT:Q03034; EMBL:U43834; NID:g1165292; PID:g1165294; GSPDB:GN000(
A;Experimental source: strain AB972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:016608; EMBL:AF016665; PIDN:AAC71178.1; GSPDB:GN00020; CESP:CA;Experimental source: strain Bristol N2; clone C49D10
                                                                                                                                                                                                                                                                                                                                                                                                              hypothetical protein C49D10.3 - Caenorhabditis elegans
C,Species: Caenorhabditis elegans
C,Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62.3%; Score 38; DB 2; Length 324; ilarity 54.5%; Pred. No. 35; Conservative 1; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62.3%; Score 38; DB 2; Length 503; 60.0%; Pred. No. 54; ive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C, Superfamily: Caenorhabditis hypothetical protein C49G7.2
A;Experimental source: adult testis; clone DKFZp434N1427 C;Genetics:
A;Note: DKFZp434N1427.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: T31992
R;Henkhaus, J.; Wohldmann, P.; Beck, C.
submitted to the EMBL Data Library, July 1997
A;Description: The sequence of C. elegans cosmid C49D10.
A;Reference number: Z21108
A;Accession: T31992
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-324 <HENN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Superfamily: conserved hypothetical protein s110936
C;Reywords: transmembrane protein
F;210-226/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             submitted to the EMBL Data Library, December 1995 A;Reference number: S62017 A;Accession: S62018
                                                                                                                  Score 39; DB
Pred. No. 74;
                                                                                                                                                                    2; Mismatches
                                                                                                                  63.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Genetics:
A;Gene: MIPS:YDR539w
A;Cross-references: SGD:S0002947
A;Map position: 4R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 60.0
Matches 6; Conservative
                                                                                                            Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70 CIGVPYLHLPC 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLTSVPC 11
                                                                                                                                                                                                                            3 SVPLTSVPC 11
                                                                                                                                                                                                                                                                           25 SIPLSSTPC 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Genetics:
A;Gene: CESP:C49D10.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Map position: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                               RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                        collagenase inhibitor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 04-Sep-1997 #sequence_revision 04-Sep-1997 #text_change 09-Jul-2004
C;Accession: 147061
R;Tanaka, T.; Andoh, N.; Takeya, T.; Sato, E.
Mol. Cell. Endocrinol. 83, 65-71, 1992
A;Title: Differential screening of ovarian cDNA libraries detected the expression of the A;Reference number: 147061; MUID:92201478; PMID:1312961
                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 1-207 <TAN>
A;Cross-references: UNIPROT:P35624; GB:S96211; NID:g247729; PIDN:AAB21865.1; PID:g247730
C;Superfamily: metalloproteinase inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C.Generator.
A;Map position: 5
A;Introns: 24/3; 56/2; 103/3; 187/1; 387/2; 429/3; 455/3; 516/1; 555/1; 782/2; 882/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein DKFZp434N1427.1 - human C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Accession: T46444
R;Bloccker, H.; Boecher, M.; Brandt, P.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S. submitted to the Protein Sequence Database, January 2000
A;Reference number: Z23032
A;Accession: T46444
A;Status: preliminary
A;Molecule type: mRNA
A;Nolecule type: mRNA
A;Residues: 1-1062 AAA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A, Accession: T29311
A, Status: preliminary; translated from GB/EMBL/DDBJ
A, Molecule type: DNA
A, Molecule type: DNA
A, Residues: 1-925 < PAU>
A, Cross-references: EMBL:U53181; PIDN:AAA93485.1; GSPDB:GN00023; CESP:F36D4.3
A, Experimental source: strain Bristol N2; clone F36D4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cispecies: Caenorhabditis elegans
Cibate: 15-0ct-1999 #sequence_revision 15-0ct-1999 #text_change 15-0ct-1999
CiAccession: T29311
R;Pauley, A.; Gattung, S.
submitted to the EMPL Data Library, March 1996
A;Description: The sequence of C. elegans cosmid F36D4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein F36D4.3 - Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63.9%; Score 39; DB 2; ilarity 50.0%; Pred. No. 64; Conservative 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                     A,Status: preliminary; translated from GB/EMBL/DDBJ
A,Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Cross-references: UNIPROT: Q9NSW2; EMBL: AL137701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39; DB
Pred. No. 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63.9%;
54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 150 CTVFPCTSIPC 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | : | : : : | | | | 2 VSLPMSNVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISVPLTSVPC 11
           CIGIPVASVP 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
                                                                                            RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

ö

Gaps

ö

ö

Gaps

```
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A.Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, B.; Kim, C.; C.A.; Li, J.H.; Li, Y.; Liu, X.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, R.Zzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A.Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, I ker, M. D.; Yu, G.; Fraser, C.M.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, I ker, M. D.; Yu, G.; Fraser, C.M.; Owther, J.C.; Davis, R.W.
A.Feference and analysis of chromosome 1 of the plant Arabidopsis.
A.Acession: B96814
A.Acession: B96814
A.Acession: B96814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Wypothetical protein AT4g12650 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Accession: H85135
R;Anonymous, The Buropean Union Arabidopsis Genome Sequencing Consortium, The Cold Spring Nature 402, 769-777, 1999
A;Title: Sequence and analysis of chromosome 4 of the plant Arabidopsis thaliana.
A;Reference number: A88001; MUID:20083488; PMID:10617198
A;Accession: H85135
A;Acture: Preliminary
A;Molecule type: DNA
A;Residues: 1-527 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              probable lpgB protein - Mycobacterium tuberculosis (strain H37RV).
C;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
C;Accession: F70592.
C;Accession: F70592.
R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon, S.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, S.; Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S.
Nature 393, 537-544, 1998
A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A;Aitle: Deciphering the biology of Mycobacterium tuberculosis from the complete genome & A;Reference number: A70500; MuID:98295987; PMID:9634230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A/Status: preliminary; nucleic acid sequence not shown; translation not shown A/Molecule type: DNA A/Residues: 1-583 <COL» A/Residues: 1-583 <COL» A/COSS-references: UNIPROT:005889; GB:Z95121; GB:AL121456; NID:g3261742; PIDN:CAB08345.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:Q9SU21; GB:NC_001268; NID:97267967; PIDN:CAB78308.1; GSPDB:GR C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q9SYM6; GB:AE005173; NID:94836878; PIDN:AAD30581.1; GSPDB:GN(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 37; DB 2; Length 184;
Pred. No. 30;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60.7%; Score 37; DB 2;
100.0%; Pred. No. 84;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60.7%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 60.7
Best Local Similarity 100.
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           150 PLTAVPC 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          344 CISVPLT 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 PLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best_Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLT 7
                                                                                                                                                                                                                                                                                                                                                                              A;Residues: 1-184 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Map position: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Gene: AT4g12650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Map position: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Gene: T30F21.11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,Molecule type: DNA
A,Residues: 1-1829 <WIL>
A,COSE-references: UNIROT:019815; EMBL:U55373; PIDN:AAC25894.1; GSPDB:GN00023; CESP:F2
C,Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypothetical protein T30F21.11 [imported] - Arabidopsis thaliana (c)Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: O2-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Accession: B96814
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues: 1-616 <MUR>
A;Cross-references: UNIPROT:Q20852; EMBL:U58750; PIDN:AAB00653.1; GSPDB:GN00022; CESP:F5
A;Experimental source: strain Bristol N2; clone F55G1
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Introns: 98/1; 136/1; 230/1; 256/1; 363/1; 401/1; 443/1; 484/1; 528/2; 551/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C.Species: Caenorhabditis elegans
C.Species: Caenorhabditis elegans
C.Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
C.Accession: T34239
Bubmitted to the EMBL Data Library, April 1996
A.Bescription: The sequence of C. elegans cosmid F26F12.
A.Reference number: Z21493
A.Stetus: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                        hypothetical protein F55G1.13 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T29234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62.3%; Score 38; DB 2; Length 1829; 70.0%; Pred. No. 1.9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62.3%; Score 38; DB 2; Length 616; 54.5%; Pred. No. 65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                      Description: The sequence of C. elegans cosmid F55G1. Reference number: 220591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein F26F12.7 - Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Introns: 110/3; 441/3; 801/2; 1244/3; 1693/2; 1784/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Accession: T29234
A,Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                       C.Species: Caenorhabditis elegans
C.Date: 15-Oct-1999 #sequence_revision 15-Oct
C.Accession: 172924
M.Murray, J.; Le, T.T.
Submitted to the EMBL Data Library, May 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 70.0
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CVGNPCTSEPC 372
                                                      |:||::| ||
|TVPVSSAPC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CIDPPLTEVP 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CISVPLTSVP 10
                     2 ISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Gene: CESP:F26F12.7
A;Map position: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Gene: CESP: F55G1.13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Map position: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
B96814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                     ò
                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

456 CISVLVISCPC 466

```
A;Residues: 1-1787 <WIL>
A;Cross-references: UNIRROT:022516; EMBL:Z67881; PIDN:CAA91798.1; GSPDB:GN00028; CESP:T1:
A;Experimental source: clone C52G5
R;Matthews, P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: EMBL:Z67884; PIDN:CAA91810.1; GSPDB:GN00028; CESP:T14G8.1
A;Experimental source: clone T14G8
                                                                                                                                                                                                      C.Species: Caenorhabditis elegans
C.Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C.Accession: T20160; T24924
R.McMurray, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Map position: X
A;Introns: 112/3; 453/3; 597/3; 815/2; 1258/3; 1682/2; 1709/3; 1764/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 60.7%; Score 37; DB 2; Length 1787; Best Local Similarity 60.0%; Pred. No. 2.7e+02; Matches 6; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                       hypothetical protein T14G8.1 - Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted to the EMBL Data Library, November 1995
A;Reference number: Z19955
A;Accession: T24924
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1787 <WIZ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                               submitted to the EMBL Data Library, November 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search completed: April 1, 2005, 09:33:24 Job time : 17.9726 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             354 CIDPPLTEIP 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                          A;Reference number: Z19231
A;Accession: T20160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Gene: CESP:T14G8.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cation-transporting ArPase, P-type - Helicobacter pylori (strain 26695)
C;Species: Helicobacter pylori
C;Species: Helicobacter pylori
C;Accession: G64707
R;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R.D. Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKenne son, J.D.; Kelley, J.M.; Cotton, M.D.; Weidman, J.M.; Fujii, C.; Bowman, C.; Watthey, L. Nature 388, 539-547, 1997
A;Authors: Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, C. A;Reference number: A64520; WUID:97394467; PMID:9252185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probable component of cation transport for cbb3-type oxidase - Helicobacter pylori (stra Cispecies: Helicobacter pylori A; Variety: strain J99
C; Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C; Accession: E71813
C; Accession: E71813
I; Nalm, K.A., Ling, L.S.L.; Moir, D.T.; King, B.L.; Brown, B.D.; Doig, P.C.; Smith, D.R.; Ives, C.; Gibson, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.E.; Vovis, G.F.; Nature 397, 176-180, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-788 <TOM>
A;Residues: 1-788 <TOM>
A;Cross-references: UNIPROT:026033; GB:AE000648; GB:AE000511; NID:g2314670; PIDN:AAD0853
A;Cross-references: UNIPROT:026033; GB:AE000648; GB:AE000511; NID:g2314670; PIDN:AAD0853
C;Superfamily: Enterococcus copper-transporting ATPase copA; ATPase nucleotide-binding description domain homology <ATT>
F;218-547/Domain: ATPase rransduction domain homology <ATT>
F;612-750/Domain: ATPase nucleotide-binding domain homology <ATN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-788 <ARN>
A;Cross-references: UNIPROT:Q9ZJB7; GB:AE001561; GB:AE001439; NID:g4156000; PIDN:AAD0696
A;Experimental source: strain J99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Title: Genomic sequence comparison of two unrelated isolates of the human gastric path
A,Reference number: A71800, MUID:99120557; PMID:9923682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Superfamily: Enterococcus copper-transporting ATPase copA; ATPase nucleotide-binding :612-750/Domain: ATPase nucleotide-binding domain homology <ATN>
                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary, nucleic acid sequence not shown; translation not shown A;Wolecule type: DNA
                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                             ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 60.7%; Score 37; DB 2; Length 788; Best Local Similarity 63.6%; Pred. No. 1.2e+02; Matches 7; Conservative 1; Mismatches 3; Indels
                                                                                                                                    DB 2; Length 583; 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 788;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60.7%; Score 37; DB 2; Length 788
63.6%; Pred. No. 1.2e+02;
tive 1; Mismatches 3; Indels
                                                                                                                                                                                                          3; Indels
                                                                                                                                                                                                   0; Mismatches
                                                                                                                                        Score 37;
Pred. No.
A, Experimental source: strain H37Rv C, Genetics:
A, Gene: lpqB
                                                                                                                                    60.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 63.6
Matches 7; Conservative
                                                                                                                                 Query Match
Best Local Similarity 70.0
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          456 CISVLVISCPC 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                         1 CISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                           16 CASVPSTSAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: E71813
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

ö

Gaps

```
25-007-2004 (TrEMBLrel. 28, Created)
25-007-2004 (TrEMBLrel. 28, Last sequence update)
25-007-2004 (TrEMBLrel. 28, Last sequence update)
25-007-2004 (TrEMBLrel. 28, Last amnotation update)
C-fos induced growth factor (Fragment).
C-fos induced growth (Cat).
Evisaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Carnivora, Fissipedia, Felia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                076LA9
                                                                                                                                                                                                                                                                                                                                                                                                             70.5%; £
                                                                                                                                                                                       01-MAR-2001 (TrEMBLrel. 16,
                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
817
925
1062
11411
11513
1723
1723
318
324
362
425
425
461
503
                                                                                                                                                                                                                                                                                                                                                                                                                                              ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ISVPLTSVP 9
                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
les 9; Conserv
                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [1]
SEQUENCE FROM N.A.
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                      Bovinae; Bos
7
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q695V0
Q695V0;
                                                                                                                                                                       O9GLX1
                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
Q695V0
                                                                                                                                                       RESULT 1
Q9GLX1
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RNXCOCORDITATION
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                             gallus gall
rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fowlpox vir fowlpox vir homo sapien homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oryza sativ
oryza sativ
m mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      soybean mos
giardia lam
                                                                                                                                                                                                                                                                                                                                                                                              mus musculu
caenorhabdi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aeropyrum p
sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                       homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                               mus musculu
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                       oryza sativ
                                                                                                                                                                                                                                                                                                                                                                                                                                              mus musculu
yarrowia li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      synechococc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               prochloroco
                                                                                                                                                                                                                                                                                                                                                                                rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                              mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mus musculu
                                                                                                                                                                                                                                                                                                                                                        felis silve
                                                                                                                                                                                                                                                                                                                                                                                                                              leishmania
                                                                                                                                                                                                                                                                                                                                                bos taurus
                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                              (without alignments) . 83.628 Million cell updates/sec
                                                       April 1, 2005, 03:33:32 ; Search time 67.3562 Seconds
                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                              0912e4
093915
093915
099305
0867w1
0867w1
066408
09521b6
09521b6
09521b6
097562
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
097652
                                                                                                                                                                                                                                                                                                                                               09g1x1
                                                                                                                                                                                                                                                                                                                                                      Q695v0
Q8qgd7
O35251
                                                                                                                                                                1612378
        GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                               1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                              Q9GLX1
Q695V0
Q8QGD7
VGGD RAT
Q91ZE4
VGGD HUMAN
VGGD MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q7R5W3
Q7U7P2
Q7V6T2
V110 FOWPV
Q70H45
                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                       - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                             Q9NF93
Q6YUH8
Q8VIA1
Q6CD98
Q9Z1H6
Q8VDF2
Q9YDF2
TIM1 PIG
Q6W040
                                                                                                                                                                                                                                                                                                                                                                                                              Q8C7W1
Q6UVX0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8NA51
Q6PF16
Q9XGQ5
Q69R01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QBBW61
QBBW83
                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                     UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                       US-09-761-636A-7
                                                                                                      1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                       Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                      631
782
782
169
207
278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     318
326
366
386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     451
451
500
524
661
665
707
                Copyright
                                                                                                                       Scoring table:
                                                                                                Perfect score:
                                      OM protein
                                                                                                       Sequence:
                                                                                                                                               Searched:
                                                                                                                                                                                                                                        Database
                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                        Result
```

```
ö
                                                                                                                              hepatitis c
caenorhabdi
                                                                                                                                                              spinacia ol
arabidopsis
                                                                                                                                                                                           anopheles g
                                nomo sapien
homo sapien
                                                                                                 oncorhynchu
                                                                                                                  arthroderma
                                                                                                                                                                                                                 saccharomyc
 chromobacte
                                                                schizosacch
                                                                                 homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                 nacaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos taurus (Bovine).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                            Q68691 P
O16608 c
Q761a9 E
Q81424 e
Q7q5t5 a
Q03034 E
                                              096qw6
09hdv4
09y4k1
07t3k0
27nuh5
                 QBhxk6
                              Q9nsw2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 43; DB 2; Length 122;
Pred. No. 6.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Lung;
Mandriota S.J., Pepper M.S.;
Mandriota S.J., Pepper M.S.;
Mandriota S.J., Pepper M.S.;
Mandriota S.J., Pepper M.S.;
Mandriota S.J., Pepper M.S.;
Mandriota S.J., Pepper M.S.;
Mandriota S.J., Pepper M.S.;
GO, GO.0016020; C.membrane; IEA.
GO, GO.0008151; P.cell growth and/or maintenance; IEA.
InterPro; IPR004153; CXCXC_repeat.
InterPro; IPR004072; PD_growth_factor.
Pfam; PF03128; CXCXC_2.2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               122 122
122 AA; 13820 MW; CC504B00E29D54EB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2003 (TrEMBLrel. 16, Last sequence update) Vascular endothelial growth factor-D (Fragment).
                                                                                                                                                                                                                                                                                                                                               122 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                               ALIGNMENTS
                                                                            AIMI HUMAN
Q7T3K0
009411
Q68691
016608
                                                                                                                                                                            Q8L424
Q7Q5T5
YD39_YEAST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProDom; PD001629; PD_growth_factor; 1. NON TER 12 122 122 SEQUENCE 122 AA; 133820 MW; CCS04B0
                                                                                                                                                                                                                                                                                                                                                                                Created)
             Q8HXK6
Q9NSW2
Q96QW6
Q9HDV4
                                                                                                                                                                                                                                                                                                                                               PRT;
```

123 AA

us-09-761-636a-7.open.rup

```
22
94
211
227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  147
151
151
150
150
150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bound by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Phasianinae,
                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Diaz-Trelles R., Rodriguez-Leon J., Kawakami Y.,
Typisua-Balmonte J.C.;
"Expression of the chick vascular endothelial growth factor D gene
during limb development.";
                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mech. Dev. 0:0-0(2002).

Mech. Dev. 0:0-0(2002).

1- SHIGLARITY: Belongs to the PDGF/VEGF growth factor family. BMED; AF479650; AAM12733.1;

HSSP; P49763; IRV6.

GO; GO:0016020; G:membrane; IEA.

GO; GO:00160820; F:growth factor activity; IEA.

GO; GO:0000823; F:growth factor activity; IEA.

GO; GO:0000074; P:regulation of cell cycle; IEA.

InterPro; IPRO00072; PD_growth_factor.

Prodom; PP001629; PD_growth_factor.

Prodom; PD01629; PD_growth_factor.
Sorensen K.C., Kitchell B.E., Nadeau M.E.;
"Oncogene Expression in Feline Vaccine Associated Sarcomas.";
Submitted (ARR-2004) to the EMBL/GenBank/DDBJ databases.
EMBL, AYS1309; AAT81599.1; --
GO, GO:0016020; C:membrane; IEA.
GO; GO:0008083; F:growth factor activity; IEA.
GO; GO:0008151; P:cell growth and/or maintenance; IEA.
InterPro; IPR000072; PD growth factor.
PRODOM; PD001629; PD growth factor.
PRODOM; PD001629; PD growth factor.
1.
                                                                                                                                                                                                                                                                         70.5%; Score 43; DB 2; Length 123; 100.0%; Pred. No. 7; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.5%; Score 43; DB 2; Length 252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                   123 123
123 AA; 14034 MW; ASA194A9EA695B57 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Growth factor; Mitogen.
SEQUENCE 252 AA; 28768 MW; 643475DAB2E72F27 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Vascular endothelial growth factor D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Pred. No. 15; ative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            326 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             168 išveiršve 176
                                                                                                                                                                                                                                                                                                                                                        2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                            20 ISVPLTSVP 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMART; SM00141; PDGF
                                                                                                                                                                                                                                                                                         Local Similarity
es 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9031;
                                                                                                                                                                                                 NON TER
NON TER
SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGD RAT
                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            080GD7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q8QGD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
VEGD_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
     RAY REPRESENTATION OF FILE OF STATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DD BRAND DR KKER BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR BRAND DR B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
```

035251; 28-FEB-2003 (Rel. 41, Created)

```
Yamada Y., Hirata Y., Nezu J., Shimane M.;

STRAIN-Sprague-Dawley;

Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

I FUNCTION: Growth factor active in anglogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vessels. May function in the formation of the wenous and lymphatic of differentiated lymphatic endothelium in adults. Binds and activates WEGFR-3 (FL4) receptor (By similarity).

--- SUBGNIT: Homodimer; non-covalent and antiparallel (By similarity).

--- SUBGLILUAR LOCATION: Secreted (By similarity).

--- FPM: Undergoes a complex proceedlytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-2; weggre-D is composed mostly of two VEGF homology domains (VHDs)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb.sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF).
                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vascular endothelial growth factor D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 X 16 AA repeats of C-X(10)-C-X-C-X(1,3)-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AF014827; AAB66557.1; -.
HSSP; P01127; 1PDG.
RGD; 620695; Figf.
Interpro; IPDG00072; PD_growth_factor.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PD_growth_factor; 1.
SMART; SM00141; DGF; 1.
PROSITE; PS00249; PDGF 1; 1.
PROSITE; PS50278; PDGF 1; 1.
Angiogeneels; Cleavage on pair of basic residues; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Interchain (By similarity).
Interchain (By similarity).
V-linked (GloNac. .) (Potential).
N-linked (GloNac. .) (Potential).
N-linked (GloNac. .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bound by non-covarent interactions (by similarity). SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.5%; Score 43; DB 1; Length 326; 100.0%; Pred. No. 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Growth factor; Mitogen; Multigene family; Repeat; Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1261AFA373596C00 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      non-covalent interactions (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   By similarity.
By similarity.
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 (incomplete).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (approximate)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Pred. ....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37112 MW;
                                                                                                                                                Name=Figf; Synonyms=Vegfd;
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             326 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
ses 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
```

```
and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                            SEQUENCE FROM N.A.
                                                        SSUE=Lung
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kirkin V., Mazitschek R., Krishnan J., Steffen A., Waltenberger J., Pepper M.S., Giannis A., Sleeman J.P.;
"Characterization of indolinones which preferentially inhibit VEGF-C-and VEGF-D-induced activation of VEGFR-3 rather than VEGFR-2.";
Eur. J. Biochem. 268:5530-5540(2001).
--- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=97349118; PubMed=9205122; DOI=10.1006/geno.1997.4774; Yamada Y., Nezu J.-I., Shimane M., Hirata Y.; "Molecular cloning of a novel vascular endothelial growth factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70.5%; Score 43; DB 2; Length 326; 100.0%; Pred. No. 19; of Indels iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Growth factor; Mitogen.
SEQUENCE 326 AA; 37106 MW; D7CAEBA6C9FABB7D CRC64;
                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO; GO:0016020; C:membrane; IEA.
GO; GO:0008083; F:growth factor activity; IEA.
GO; GO:0008283; P:cell proliferation; IEA.
GO:0000081; P:cell proliferation; IEA.
Form, PF00341; PDGF; 1.
Probom; PD001629; PD_growth_factor; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           354 AA
                                                                                                                                                                                                                                         326 AA
                                                                                                                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=Sprague-Dawley;
MEDLINE=21541129; PubMed=11683876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-FEB-2003 (Rel. 41, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00249; PDGF 1; 1. PROSITE; PS50278; PDGF 2; 1.
                                                                                                                                                                                                                                                                                        01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=FIGF; Synonyms=VEGFD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomics 42:483-488(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat)
                                                                              173 İSVPLTSVP 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    173 išvPĽTŠVP 181
                         2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        growth factor) (FIGF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00141; PDGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
es 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEOUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEGD_HUMAN
AC 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DT 28-FEB-2003
DF WASCULAR FACTE
OC BUKARYOTA! N
MAMMALIA! EU
OC BUKARYOTA! N
MAMMALIA! EU
COC BUKARYOTA! N
MAMMALIA! EU
COC BUKARYOTA! N
MAMMALIA! EU
COC BUKARYOTA! N
MAMMALIA! EU
COC BUKARYOTA! N
MAMMALIANES973
RR YAMAGA Y. 1
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
RR YAMAGA Y. 1
RT "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES973
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULARES97
REAL "WOLICULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Lund
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                      Q91ZE4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fatches
                                                                                                                                                                   RESULT E (2012) 110 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2012) 120 (2
                                                                        g
                         ઢ
```

```
Widelings 1910 (1910) pubMed-9479493; DOI-10.1006/geno.1997.5079; RA ROCCHEGALING. Lesting Mr. Luddia. A. Orlandimi M., Franco B., RA ROCCHEGALING. Lesting Mr. Luddia. A. Orlandimi M., Franco B., RA ROCCHEGALING. Lesting Mr. Luddia. A. Orlandimi M., Franco B., RA ROCCHEGALING. Lesting Mr. Luddia. A. Orlandimi Mr. Franco B., RA ROCCHEGALING. S. Lesting Mr. Luddia. A. D. Landia. A. D. Letting Mr. Mak E., Maskine T., Vitali A. Mila A.P., Mila A.P., Mila A.P., Mila A.P., Mala A.P., Mala A.P., Mala A.P., Mala B., Machine Mr. Walk E., Maskine T., Vitali A. P., Mila A.P., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B., Mala B.
```

Synonyms=Vegfd;

```
Name=Figf;
Mus musculu
ö
use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                 GO; GO:0005615; C:extracellular space; TAS.
GO; GO:0005161; F:platelet-derived growth factor receptor bin. . .; TAS.
GO; GO:0005102; F:receptor binding; TAS.
GO; GO:0008284; P:receptor binding; TAS.
InterPro; IPR004153; CXCXC repeat.
InterPro; IPR000072; PD_growth_factor.
InterPro; IPR001318; CXXXC; 3.
Ffam; PF003128; CXXXC; 3.
Pfam; PF003129; CXXXC; 3.
Pfam; PF00341; PDGF; 1.
SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (c-fos induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                         4.

By similarity.
By similarity.
By similarity.
By similarity.
Interchain (By similarity).
Interchain (By similarity).
N-linked (GlcNac. .) (Potential).
N-linked (GlcNac. .) (Potential).
                                                                                                                                                                                                                                                                                                                                  Or 99 (in a minor form).
Vascular endothelial growth factor D.
                                                                                                                                                                                                                                                                         PROSITE; PS00349; PDGF 1; 1.
PROSITE; PS50278; PDGF 2; 1.
Angiogenesis; Cleavage on pair of basic residues;
Direct protein sequencing; Glycoprotein; Growth factor; Mitogen;
Multigene family; Repeat; Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                        4 X 16 AA repeats of C-X(10)-C-X-C-X(1,3)-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70.5%; Score 43; DB 1; Length 354;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
65-JUL-2004 (Rel. 44, Last annotation update)
Vascular endothelial growth factor D precursor (VEGF-D)
growth factor) (FIGF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                (approximate).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 358 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Preu. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 21;
                                           EMBL, D89630; BAA24264.1; -.
EMBL, Y12864; CAA73370.1; -.
EMBL, Y12864; CAA73371.1; -.
EMBL, Y12865; CAA73371.1; JOINED.
EMBL, Y12865; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12800; CAA73371.1; JOINED.
EMBL, SUGO185; CAA73371.1; JOINED.
EMBL, BC027948; AA42794811; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40444 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                               HSSP; P01127; 1PDG.
Genew; HGNC:3708; FIGF.
                                                                                                                                                         Genew; HGNC:3708; FIGF.
H-InvDB; HIX0016668; -.
MIM; 300091; -.
                                                                                                                                                                                                                                                                                                                                                                                                 2293
318
1153
1191
1145
1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   168 İSVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            354 AA;
                                                                                                                                                                                                                                                                                                                                                                               222
222
277
277
301
111
142
146
136
145
145
145
287
                                                                                                                                                                                                                                                                                                                                   22
89
206
222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGD_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P97946;
                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                                                                                                                                      PROPEP
                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
                                                                                                                                                                                                                                                                                                                                                                                REPEAT
                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
/EBHHHAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
MECEPTOR SPECIFICITY.

MEDINE=2127641; PubMed=11279005; DOI=10.1074/jbc.M100097200;

MEDINE=2127641; PubMed=11279005; DOI=10.1074/jbc.M100097200;

A Stenvers K.L., Karkkainen M.J., Alitalo K., Stacker S.A., Achen M.G.;

A Stenvers K.L., Karkkainen M.J., Alitalo K., Stacker S.A., Achen M.G.;

A Tactor-d is different in mouse and man.";

A Loctor-d is different in mouse and man.";

A Diol. Chem. 276:19166-19171(2001)

- I- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis

and endothelial cell growth, stimulating their proliferation and
migration and also has effects on the permeability of blood
vessels. May function in the formation of the venous and lymphatic
vacular systems during embryogenesis, and also in the maintenance
of differentiated lymphatic endothelium in adults. Binds and
activates VEGFR-3 [Fl4) receptor.

- SUBURILUAR LOCATION: Secreted.

- ITSGUE SPECIFICITY: Highly expressed in fetal and adult lung.

- ISGUELLUAR LOCATION: Secreted.

- ITSGUE SPECIFICITY: Highly expressed in a dynamic pattern in several
body structures and organs of the embryo such as limb buds,
acoustic ganglion, teeth, heart, anterior pituitary as well as
lung and kidney mesenchyme, liver, derma, and periosteum of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vertebral column.

INDUCTION: By the transcription factor c-fos.

PUN: Undergoes a complex proteolytic maturation which generates a PTM: Undergoes a complex proteolytic maturation which generates a Variety of processed secreted forms with increased activity toward VEGFR-3 and VEGFR-2. VEGF-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed vegFR-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions (By similarity).

SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=98288130; PubMed=9622618; DOI=10.1016/S0925-4773(98)00049-5; Avantaggiato V., Orlandini M., Acampora D., Oliviero S., Simeone A.; Embryonic expression pattern of the murine figf gene, a growth factor belonging to platelet-derived growth factor/vascular endothelial growth factor family.";
                                                                                                                                                                                                                                                                                        STRAIN=C57BL/61; TISSUE=Fibroblast;
MEDLINE=97030254; PubMed=8876195; DOI=10.1073/pnas.93.21.11675;
MEDLINE=97030254; PubMed=8876195; DOI=10.1073/pnas.93.21.11675;
MICHAGINI M., Marconcini L., Ferruzzi R., Oliviero S.;
"Identification of a c-fos-induced gene that is related to the platelet-derived growth factor/vascular endothelial growth factor
                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Lung;
MEDLINE=97349118; PubMed=9205122; DOI=10.1006/geno.1997.4774;
MEDLINE=97349118; PubMed=9205122; DOI=10.106/geno.1997.4774;
Medla Y., Nezu J.-I., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial growth factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Proc. Natl. Acad. Sci. U.S.A. 93:11675-11680(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; X99572; CAA67892.1; -. EMBL; D89628; BAA14002.1; -. HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mech. Dev. 73:221-224(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genomics 42:483-488(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEVELOPMENTAL STAGE.
(Mouse)
                                                                                                                                                                                                                                             FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                    NCBI_TaxID=10090;
musculus
                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amily.
```

```
ö
                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditís.
NCBI_TaxID=6239;
             158 By similarity.
194 By similarity.
196 By similarity.
141 Interchain (By similarity).
150 Interchain (By similarity).
160 N-linked (GLONAC. .) (Potential).
190 N-linked (GLONAC. .) (Potential).
292 N-linked (GLONAC. .) (Potential).
40908 MW; 6636B17FBF07037C CRC64;
                                                                                                                                                                  Vascular endothelial growth factor
Potential.
4 X 16 AA repeats of C-X(10)-C-X-C-
X(1,3)-C.
                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        investigating biology. The C. elegans Sequencing Consortium."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'Genome sequence of the nematode C. elegans: a platform for
                                                                                                                                                                                                                                                                                                                                         Score 43; DB 1; Length 358;
                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [2]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
Wilson R., Bradshaw H.;
Wilson R., Bradshaw H.;
"The sequence of C. elegans cosmid F25E5.";
Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-OCT-2003 (TrEMBLrel. 15, Last annotation update)
Serpentine receptor, class h protein 92.
Name=srh-92; ORFNames=F25E5.13;
                                                                                                                                                                                                                                                                                                                                 70.5%; Sco...
100.0%; Pred. No. ...
                                                                                                                                                                                                         (approximate)
                                                                                                                                                                                                                                                                                                                                                                                                                                             348 AA
                                                                                                                                                 Fotential.
Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-Bristol N2;
MEDLINE-99069613; PubMed-9851916;
                                                                                                                                                                                                                                                                                                                                                          9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                  21
210
210
358
323
                                                                                                                                                                                                                                                                                                                                                                                        173 ISVPLTSVP 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                             2 ISVPLTSVP 10
PMMA-2DPAGE; P97946;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WormBase Consortium;
                                                                                                                                                                                                                                                                                                                      358 AA;
                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                         22
94
211
227
                                                                                                                                                                                                                                           DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                        PROPEP
CHAIN
PROPEP
DOMAIN
                                                                                                                                                                                                       REPEAT
REPEAT
                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                            REPEAT
                                                                                                                                                                                                                                   REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9GUB7
                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                            g
```

```
STRAIN=CS7BL/6J;
MEDLINE=99279233; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=C33008L01Rik;
Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus ES cells cDNA, RIKEN full-length enriched library,
clone:C330008L01 product:hypothetical protein, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                   WormBass, WBGGFFF 13.
WormBep, F25E5.13.
WormPep, F25E5.13. CE24915.
G0, G0:0004930, F:GFPxotein coupled receptor activity, IEA.
G0; G0:0004872, F:GFpxotein coupled receptor activity, IEA.
Interpro, IPR003003, 7TM_chemrecept2.
Interpro, IPR0010168, NM7TM_chemreceptc.
PF01604, 7tm_5, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  68.9%; Score 42; DB 2; Length 348; 54.5%; Pred. No. 31; ive 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=CS7BL/6J;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                           Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                       Wilson R.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                           WormBase Consortium,
Submitted (SEP-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; AF078157; AAG24081.1;
                                                                                                                                                                                      to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                       348 AA; 39882 MW; 456DEC8833CF3176 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 54.5
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33 CFSIQLVSIPC 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=C57BL/6J;
The FANTOM Consortium,
                                                                                                                                                                            Wilson R.;
Submitted (AUG-2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                           SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                 SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                      SEQUENCE FROM N.A. STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                               Waterston R.;
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                  Wilson R.
                                                                                                                                                                         Wilson R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08C7W1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8C7W1
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9NF93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06YUH8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09NF93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
Q6YUH8
ID Q6YUH
AC Q6YUH
DT 05-JU
DT 05-JU
DT 05-JU
DE HYPOLI
DE HYPOLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9NF93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CSTRAIN=CSCRL/6J;
Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P., Adachi J., Aizawa K., Hanagaki T., Hara A., Hashizume W., Haramoto K., Hiraoka T., Hirozane T., Hayateu N., Hiraoka T., Hirozane T., A Hayashida K., Hayateu N., Hiraoka T., Hirozane T., A Ratoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S., Kurihara C., Mateuyama T., Miyazaki A., Murata M., Nakamura M., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y., A Sato R., Saito R., Saito R., Sahai C., Sakaru R., Sakaru R., Sakaru R., Sakaru R., Sakaru R., Sasaki D., Shibata K., Shinagawa A., Shiraki T., Soqabe Y., Tagami M., Tagawa A., Toya T., Yasaku Akahira S., Takeda Y., Tagami M., Tomaru A., Toya T., Yasaku Akahira S., Takeda Y., Tanaka T., Soubmitted (JUL-2001) to the EmBL/GenBank/DDBJ databases.
the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs."; Nature 420:563-573 (2002).
                                                                                                                                            STRAIN=C57BL/6J;
MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
Konno H., Okazadi Y., Muramatsu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                            STRAIN-C57BL/6J;
MEDLINE-20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsunnoto H., Sakkaguchi S., Ikegami T., Kashiwagi K.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RIKEN integrated sequence analysis (RISA) system-384-format
Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [1] = SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE 22887296; Pubwed=12975309; DOI=10.1101/gr.1293003; SIARK H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118 AA; 12658 MW; 7245EA4643F9123A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 41; DB 2
Pred. No. 15;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C33000BL01Rik.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel. 27, (TrEMBLrel. 27, (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLPTPLTPTPC 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGD; MGI:2147036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORFNames=UNQ5808;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hypothetical
SEQUENCE 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUL-2004
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IDLW5808.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95
                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qeuvxo
Qeuvxo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O COUXO

O C
       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                         "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Leishmania.
NCBI_TaxID=5664;
Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Hang A., Kifm H.S., Klimowski L., Jin Y., Johnson S., Lee J., Seshagiri S., Simmons L., Singh J., Sanchez C., Schoenfeld J., Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D., Yi S., Yu G., Yu G., Yangura D., Wis., Yu G., Yu G., Zhang M., Zhang Z., Goddard A., Wood W.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ivens A.C., Murphy L., Quail M., Harris D., Oliver K., Lawson D., Rajandream M.A., Barrell B.G.; Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases. EMBL, AL139794; CAC22646.1; C. GO, GO.0016021; C. integral to membrane; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-98146435; PubMed-9477341;
Ivens A.C., Lewis S.M., Bagherzadeh A., Zhang L., Chan H.M.
Smith D.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "A physical map of the Leishmania major Friedlin genome.";
Genome Res. 8:135-145(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65.6%; Score 40; DB 2; Length 208; 63.6%; Pred. No. 42;
                                                                                                                                                                                                                                                                                                                                                                                                                 2; Length 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein P0666E12.10 (Hypothetical protein P0459B01.2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pothetical protein; Transmembrane.
QUENCE 208 AA; 23200 MW; 11DB7F6DDDC566A3 CRC64;
                                                                                                                                                                                                                                                                                bioinformatics assessment.";
Genome Res. 13:2265-2270(2003).
EMBL, AY359125; AAQ89482.1; --
SEQUENCE 80 AA; 8927 MW; 7641FBD2F96502A0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-0CT-2003 (TrEMBLrel. 24, Last annotation update)
Hypothetical transmembrane protein L8032.05a.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               346 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          208 AA.
                                                                                                                                                                                                                                                                                                                                                                                                              Score 40; DB
Pred. No. 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 16;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                 65.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 63.6
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 65.6
Best Local Similarity 45.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96 CVSVPLMSACC 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |: || : :||
41 CVQVPFSWIPC 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leishmania major.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=Friedlin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-Friedlin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=L8032.05a;
```

ઠ g

```
Dujon B., Sherman D., Fischer G., Durrens P., Casaregola S.,
Lafontaine I., de Montigny J., Marck C., Neuveglise C., Talla E.,
A Goffard N., Frangeul L., Aigle M., Anthouard V., Babour A., Barbe V.,
A Barnay S., Blanchin S., Beckerich J.M., Beyne E., Bleykasten C.,
A Boistame A., Boyer J., Cattolico L., Confanioleri F., de Daruvar A.,
Bospons L., Fabre E., Fairhead C., Ferry-Dumazet H., Groppi A.,
Hantraye F., Hennequin C., Jauniaux N., Joyet P., Kachouri R.,
A Kerrest A., Koszul R., Lemaire M., Lesur I., Ma L., Muller H.,
Nicaud J.M., Nikolski M., Oztas S., Ozier-Kalogeropoulos O.,
Pellenz S., Notlas E., Strand G.F., Straub M.L., Suleau A.,
Swennen D., Tekaia F., Wesolowski-Louvel M., Westhof E., Wirth B.,
Aswennen D., Tekaia F., Rosolowski-Louvel M., Westhof E., Wirth B.,
Bouchier C., Caudron B., Scarpelli C., Gaillardin C., Weissenbach J.,
Mincker P., Souciet J.L.;
I. Mature 430:35-44(2004).
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                   ORFNames=YAL10C02541g;
Yarrowia lipolytica CLIB99.
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
    ö
                                                                                                                                                                                                                                                                                       25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Yarrowia lipolytica chromosome C of strain CLIB99 of Yarrowia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.6%; Score 40; DB 2; Length 631; llarity 60.0%; Pred. No. 1..3e+02; Conservative 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genoscope;
submitred (JUL-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; CR381129; CAG81663.1; -.
SEQUENCE 631 AA; 70478 MW; F81FBCB97476E6EB CRC64;
    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
05-UUL-2004 (TrEMBLrel. 27, Last annotation update)
Nuclear protein np95 (Nuclear zinc finger protein Np95).
Name-Uhrfi; Synonyms-Np95;
    5
                                                                                                                                                                                                                         631 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 782 AA.
    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Saccharomycetales, Dipodascaceae, Yarrowia
                                                                                                                                                                                                                                                                   (TrEMBLrel. 28, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                         PRT;
    7; Conservative
                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243 CITVPVVŠIP 252
                                                    1 CISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
                                                                                                 349 CLKPPLTSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=CLIB99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=CLIB99;
                                                                                                                                                                                                                                                                   25-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genolevures
                                                                                                                                                                                                                                                                                                                                                                    lipolytica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0921Н6
0921Н6;
                                                                                                                                                                                                                      Q6CD98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
Q9Z1H6
    Matches
                                                                                                                                                                         14
                                                                                                                                                                       RESULT
Q6CD98
                                                                                         рp
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                   Oryza sativa (japonica cultivar-group).
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:000151; C:ubiquitin ligase complex; IEA.
GO; GO:0003677; F:DNA binding; IEA.
GO; GO:0008492; F:ubiquitin-protein ligase activity; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
PF00628; PHD; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=22206529; PubMed=12084726; DOI=10.1074/jbc.M205189200;
Muto M., Kanari Y., Kubo E., Takabe T., Kurihara T., Fujimori A.,
Tatsumi K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 40; DB 2; Length 474; Pred. No. 1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.6%; Score 40; DB 2; Length 346; 63.6%; Pred. No. 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Indels
                                                                                                                                                                                                                                                                                         Sasaki T., Matsumoto T., Yamamoto K.;
Submitted (FRB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AP005868; BAD08173.1;
EMBL; AP04778; BAD07857.1; -.
                                                                                                                                                                                           Sasaki T., Matsumoto T., Katayose Y.;
Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein.
SEQUENCE 346 Aa; 37266 MW; 411ED95C7021A216 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53685 MW; OEAE841CCD8C7FEA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00213; LIPOCALIN; UNKNOWN 1. PROSITE; PS0053; UBIQUITIN 2; 1. PROSITE; PS01359; ZF PHD 1; UNKNOWN 1. PROSITE; PS50016; ZF PHD 2; 1. PROSITE; PS50089; ZF RING 2; 1.
Name=P0666E12.10; Synonyms=P0459B01.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00240; ubiquitin; 1. Pfam; PF02182; YDG SRA; 1. PRINTS; PR00348; UBIQUITIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2002 (TrEMBLrel. 20, 01-MAR-2002 (TrEMBLrel. 20, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 63.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | :||| || |
CANVPLVSVSC 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMART; SM00249; PHD; 1
SMART; SM00213; UBQ; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     474 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                             [2]
SEQUENCE FROM N.A.
                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                       NCBI_TaxID=39947;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Np95 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8VIA1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
08VIA1
10 01-MA
AC QBVIA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
```

```
REAL MEDILINES—97097950; pubbled—9880673;
RA MEDILINES—9709950; pubbled—9880673;
RA Puljanuria R. Miteuda W. Takenoto V., Hashimoto Y., Kubo E., Araki R., Pulyanuria R., Miteuda W., Takenoto V., Hashimoto Y., Kubo E., Araki R., Pulyanuria R., Miteuda W., Takenoto V., Hashimoto Y., Kubo E., Araki R., Pulyanuria R., Miteuda M., Takenoto W., Mithola M., Gorda R., Mithola M., Gorda R.M., Gorda R.M., Gorda R.M., Gorda R.M., Gorda R.M., Gorda R.M., Bamm. Genome 9:1032-1035[199].

RA Davenport J.W., Ferrandes E.R., Neale G.A.M., Gorda R.M., Mithola M.M., AFZ14046, AAK5743.1;

RA Davenport J.W., Ferrandes E.R., Neale G.A.M., Gorda R.M., Bammis, Bayon M.M., Marillanus M.M., Mithola M.M., Marillanus M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M., Mithola M.M
```

Search completed: April 1, 2005, 09:25:59
Job time : 69.3562 secs

349 CLKPPLTSVP 358

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 03:27:37 ; Search time 83.0274 Seconds Run on:

(without alignments)
51.240 Million cell updates/sec

US-09-761-636A-7

1 CISVPLTSVPC 11 score: Sequence: Title: Perfect

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

2105692 Total number of hits satisfying chosen parameters:

2105692 seqs, 386760381 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

A Geneseq 16Dec04:* Database :

geneseqp19808:* geneseqp19908:* geneseqp20008:* geneseqp20018:* geneseqp20018:* geneseqp20038:* 4 5 9 7 8 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqp20048:*

SUMMARIES

Description	Aau04526 VEGF base	Aau04542 VEGF base	Aau04545 VEGF base	Aau04543 VEGF base	Aau04544 VEGF base	Aau04532 VEGF base	Aau04520 Human VEG	Aay23889 Human vas	Aab11931 Human tru	Abb84621 Human wil	Abg73750 Human VEG	Aam47933 Mouse VEG	Aay08287 Human gro	Abg73779 Human NVR	Aaw53243 Mus muscu	Aam47931 Mouse VEG	Aaw53240 Homo sapi	Aay97572 Human VEG	Aaw44296 Rat vascu	Aay08286 Human gro	Human	Aaw49036 Human zve	Aaw53241 Homo sapi	Aab10649 Human VEG	Aay70750 Human pre
QI QI	AAU04526	AAU04542	AAU04545	AAU04543	AAU04544	AAU04532	AAU04520	AAY23889	AAB11931	ABB84621	ABG73750	AAM47933	AAY08287	ABG73779	AAW53243	AAM47931	AAW53240	AAY97572	AAW44296	AAY08286	AAW44293	AAW49036	AAW53241	AAB10649	AAY70750
80	4	4	4	4	4	4	4	~	ო	ø	9	Ŋ	7	Ó	~	ß	7	4	N	7	7	~	N	m	m
* Query Match Length DB	11	11	11	11	11	10	96	109	109	109	109	110	178	287	321	321	325	325	326	337	354	354	354	354	354
% Qùery Match	100.0	96.7	93.4	88.5	85.2	74.6	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5		70.5	70.5	70.5	70.5	70.5	70.5	70.5
Score	61	29	57	54	52	45.5	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Result No.	7	~	٣	4	ហ	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Aay70983 Human vas Aab29049 Human VEG Aab37606 Human VEG	Aab70685 Human vas Aay97573 Human VEG Aau08441 Polypepti Abc33055 Human vas		Human Human A huma	Adr31436 Human vas Aaw14992 Murine c- Aaw44295 Mouse vas	Aaw53242 Mus muscu Aam47930 Mouse VEG Aaw14994 Human c-F	Aay07909 Human sec
AAY70983 AAB29049 AAB37606	AAB70685 AAY97573 AAU08441 ABG33055	ABG32046 ABB84623 ADD08950	ADN95941 ADQ20886 ADO71602	ADR31436 AAW14992 AAW44295	AAW53242 AAM47930 AAW14994	AAY07909
354 3 354 3 354 4	23 23 25 25 25 25 25 25 25 25 25 25 25 25 25		354 7 354 8 354 8		358 2 358 5 620 2	39 2
70.5 70.5 70.5	70.5 70.5 70.5	70.5	70.5 70.5	70.5 70.5 70.5	70.5 70.5 8.05	6.89
4. 4. 4. E. E. E.	4. 4. 4. 4. E. E. E. E. E.	4 4 4 E E E	4 4 4 6 6 6	4 4 4 G E E	4 4 4 6 6 6	42
26 27 28	330 330 337		36 37 38	39 4 4 1 1	4 4 4 2 6 4	45

## ALIGNMENTS

RESULT 1

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. AAU04526 standard; peptide; 11 AA. VEGF based monocyclic peptide 3. (first entry) 26-SEP-2001 AAU04526; AAU04526 

Location/Qualifiers Synthetic.

1. .11 /note= "This bond cyclises the peptide" 18-JAN-2001; 2001WO-US001533. Key Disulfide-bond WO200152875-A1 26-JUL-2001.

(LUDW-) LUDWIG INST CANCER RES. 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

Cendron A; Stacker S, Hughes RA, Achen MG,

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

Claim 49; Page 32; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a

us-09-761-636a-7.open.rag

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

To cyclisation are used to interfere with angiogenesis.

C characterised by angiogenesis, neovascularisation or lymphangiogenesis.

C The condition is diabetic retinopathy pooriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive correlated angiogenic dysfunction, diabetes induced neovascular sequelae, nymportenaion induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to indeptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and contains and proposition of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neovascularisation, lymphangiogenesis, psoriasis, tumour, diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy, chronic inflammation, cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 61; DB 4; Length 11; 100.0%; Pred. No. 0.0021;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Achen MG, Hughes RA, Stacker S, Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU04542 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGF based monocyclic peptide 20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.
Best Local Similarity 100.
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CISVPLTSVPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU04542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
             ð
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human USCFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-corporate of producing a monomeric monocyclic peptide by a measuring beta-corporate loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior peptides) and a cyclic peptide with at least one amino acid deleted prior cyclisation are used to interfere with angiogenesis, necessation or lymphangiogenesis, re also used to modulate vascular permeability or brain. The peptides are also used to modulate vascular permeability or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or brain are least one biological activity induced by VECF. Coreb and are also used in combination with an anti-inflammatory agent, to treat a corporation or periodes are inflammatory agent, to treat a corporation or preservable or the peptides or the peptides 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                    sequence represents a monomeric monocyclic peptide of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, VEGF, vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96.7%; Score 59; DB 4; Length 11; 90.9%; Pred. No. 0.0045; ive 1; Mismatches 0; Indels

    .11
/note= "This bond cyclises the peptide"

                                               Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU04545 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VEGF based monocyclic peptide 23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 90.5
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CLSVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200152875-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04545;
  residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU04545
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

WO200152875-A1

```
to cyclisation are used to interfere with anglogenesis.

The condition are used to interfere with anglogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy, the condition is diabetic retinopathy, psoriasis, arthropathy, the condition is diabetic retinopathy, psoriasis, arthropathy, the condition is diabetic retinopathy, psoriasis, arthropathy, the mangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angloplasity restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive normone-related anglogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to inage blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF, or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior
                                                                                                                         Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovascular sequelae; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 57; DB 4; Length 11;
Pred. No. 0.0095;
2; Mismatches 0; Indels

    11
    Inote= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diabetic retinopathy; chronic inflammation; cyclic.
                                          Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Mismatches
                                                                                                                                                                                                                                          Example 25; Page 47; 102pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                          Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU04543 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEGF based monocyclic peptide 21.
(LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93.4%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVSVPLTTVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diabetic retinopathy
                                                                                     WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04543;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CC Whose 3-dimensional structure is modelled on the expose loop of human composed to the invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-ce beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior corpitation are used to interfere with angiogenesis.

CC cyclisation are used to interfere with angiogenesis.

CC corditation are used to interfere with angiogenesis.

CC dearacterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC characterised by angiogenesis, neovascularisation or host-recovery

CC crebrovascular accident, post-angioplasty restenosis, head, heat or cold creaman, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability accumulation in peripheral limbs or in lungs, peritoned cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic creamal accountation with at least one biological activity induced by VEGF, VEGF-C or p and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, when an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflament on the peptides are used to induce the control of the control of the control o
                                                                                                                                                                                                                                                                                                                                              Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, VEGF, vascular endothelial growth factor, angiogenesis, neovascularisation; lymphangiogenesis; psoriasis; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 54; DB 4; Length 11;
Pred. No. 0.03;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                      Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                      Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU04544 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF based monocyclic peptide 22.
                                                                                                                                                                                                        (LUDW-) LUDWIG INST CANCER RES
                                                                                          18-JAN-2001; 2001WO-US001533.
                                                                                                                                   18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88.5%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match
Best Local Similarity 72...
8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CITIPLISLPC 11
                                                                                                                                                                                                                                                      Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-SEP-2001
                                             26-JUL-2001
                                                                                                                                                                                                                                                 Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU04544;
                                                                                                                                                                                                                                                                                                                                                                                                                 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU04544
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       $$$$$$$$$$$
```

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

VEGF based monocyclic peptide 10.

(first entry)

26-SEP-2001

10 /note= "This bond cyclises the peptide"

Location/Qualifiers

Disulfide-bond

Synthetic

WO200152875-A1

26-JUL-2001

Cendron A;

Stacker S,

Hughes RA,

Achen MG,

WPI; 2001-442248/47.

(LUDW-) LUDWIG INST CANCER RES 18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P. 18-JAN-2001; 2001WO-US001533

```
Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
diabetes induced neovascular sequelae, rheumatoid arthritis;
diabetic retinopathy; chronic inflammation; cyclic.
                                                         /note= "This bond cyclises the peptide"
                                                                                                                                                                      Cendron A;
                                                                                                                                                                                                                                                Example 25; Page 47; 102pp; English
                                         Location/Qualifiers
                                                                                                                                                                      Stacker S,
                                                                                                                                                     (LUDW-) LUDWIG INST CANCER RES
                                                                                                           18-JAN-2001; 2001WO-US001533.
                                                                                                                           18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                     Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diabetic retinopathy
                                                                                                                                                                                     WPI; 2001-442248/47.
                                                 Disulfide-bond
                                                                           WO200152875-A1
                                                                                           26-JUL-2001
                         Synthetic
                                                                                                                                                                                                                               residues.
```

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human vEGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cycleine residues. The monocyclic peptides index a cyclis peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis.

The condition is diabetic retinopathy, paoriasis, arthropathy, hear or changiona, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascular sequelae, head, heat or cold trauma, substance-induced neovascular sequelae, nor hear or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition diabete sinduced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition diabete liver) peritoned leavity, pleura, accumulation in peripheral links or in lungs, peritonal captured.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VBGF. VBGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85.2%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
```

```
Score 52; DB 4; Length 11;
Pred. No. 0.064;
); Mismatches 0; Indels
                                                                                                                         RESULT 6
AAU04532
LD AAU04532 standard; peptide; 10 AA.
                             8; Conservative
                                                         1 CISVPLTSVPC 11
                                                                        |||:|::||||
CISLPISSVPC 11
                Local Similarity
                 Best Loca
Matches
                                                         ð
                                                                                   염
```

ö

Gaps ô

```
Gaps
                                                                                                                                                        ;;
                                                                                                                                                    74.6%; Score 45.5; DB 4; Length 10; larity 90.9%; Pred. No. 0.69; Conservative 0; Mismatches 0; Indels
                                                                                                                                                    Query Match
Best Local Similarity
Matches 10; Conserv
```

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human vectod (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-concern of producing a monomeric monocyclic peptide loop fragment from an exposed loop of a growth factor protein and peptide loop fragment from an exposed loop of a growth factor protein and cyclic peptides with at least one amino acid deleted prior peptides, and a cyclic peptide with at least one amino acid deleted prior corpitation are used to interfere with angiogenesis.

CC cyclisation are used to interfere with angiogenesis.

CC cyclisation are used to interfere with angiogenesis.

CC corpitation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC cromarisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation of the liver. excessive hemmangioma, vascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver. excessive corpused angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability corbrain. The peptides are used to image blood vessels and lymphatic crace brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere crace with at least one biological activity induced by VEGF, VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and ä Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine Claim 49; Page 32; 102pp; English. diabetic retinopathy Sequence 10 AA; residues.

```
andiogenesis, necvascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-recovery cerebrovascular accident, post-amignant or benign tumour, post-recovery cerebrovascular accident, post-amignoplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dystunction, diabetees induced neovascular sequelae, hypertenation induced neovascular sequelae, hypertenation induced neovascular sequelae, hypertenation induced neovascular sequelae, hypertenation induced neovascular sequelae, hypertenation induced neovascular sequelae, hypertenation induced induced by periodes are used to inage blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity pleution and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially renumatoid arthritis, psoriasis and diabetic retinopathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence represents Human VEGP-D (vascular endothelial growth factor) amino acids Val101-PRO186. The sequence is used in a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, neovascularisation or lymphangiogenesis in a mammal with a condition characterised by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rel monomeric monocyclic peptide, used to interfere with angiogenesis, lymphangiogenesis, is produced by cyclizing a peptide loop fragment om an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; VEGF-D; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human VEGF-D amino acids Val101-PRO186,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page 89; 102pp; English.
                                                                                                                                                                                                                                                              AAU04520 standard; protein; 96 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                   CISVPL-SVPC 10
   CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200152875-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 96 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Achen MG,
                                                                                                                                                                                                                                                                                                                                              AAU04520;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    from
                                                                                                                                                                                       RESULT 7
AAU04520
ID AAU04520
ID AAU0
XX
AAU0
XX
C AAU0
XX
KW Huma
XX
KW Huma
XX
KW Huma
XX
KW Huma
XX
KW Huma
XX
KW Huma
XX
KW Huma
XX
KW Holy
YX
KW Huma
XX
KW Holy
YX
KW Holy
YX
KW Holy
YX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
XX
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Holy
KW Hol
ઠે
                                                           g
```

Cendron A;

Stacker S,

```
The present sequence represents human vascular endothelial growth factor (VEGF). The specification describes a human cell line which stably expresses VEGF-D, or fragments/analogues having VEGF-D biological activity. VEGF-D antagonists, e.g. antisense nucleic acids or triplex or seful for the treatment or alleviation of malignant melanomas, tumnours or psoriasis. Angiogenesis and lymphangiogenesis stimulating amounts of VEGF-D can be administered to enhance the acceptance and/or healing of skin grafts or to stimulate the healing of a surgical or traumatic wound to the skin. Lymphangiogenesis stimulating amounts of to treat lymphadema. Endothelial proliferation stimulating amounts of VEGF-D can be used to treat scleroderma. Vascularisation stimulating amounts of VEGF-D can be used to treat anhydrotic ectodermal dysplasia. VEGF-D antibodies are useful for detecting tumours expressing VEGF-D. Fully-chosen from endothelial cell proliferation, migration, survival and differentiation and lymphangiogenesis without inducing vascular
                                                                                                                                                                                                                                                                                                                  Vascular endothelial growth factor; VEGF, VEGF-D; malignant melanoma; tumour; psoriasis; angiogenesis; lymphangiogenesis; skin graft; wound healing; lymphedema; scleroderma; anhydrotic ectodermal dysplasia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A human cell line stably expressing vascular endothelial growth factor useful for treating melanomas or tumors expressing VEGF-D.
                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.5%; Score 43; DB 2; Length 109; 100.0%; Pred. No. 21;
                DB 4; Length 96;
19;
                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                     Human vascular endothelial growth factor (VEGF)-D.
                                                 ;
0
    70.5%; Scor.
100.0%; Pred. No. 10.
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Preα. ...
rive 0; Mismatches
                                                                                                                                                                                        AAY23889 standard; protein; 109 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 6; Page 72; 79pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97AU-00001131.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0087392P.
                                                                                                                                                                                                                                                     (first entry)
Query Match
Best Local Similarity 100...
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Conservative
                                                                             10
                                                                                                           68 ISVPLTSVP 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-405368/34.
                                                                             2 ISVPLTSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76 ISVPLTSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 109 AA;
                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                  WO9933485-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-DEC-1998;
                                                                                                                                                                                                                                                     21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-JUL-1999.
                                                                                                                                                                                                                        AAY23889;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                           AAY23889
                                                                                                         a
                                                                             ò
                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

ď

Human; single-chain; extracellular ligand-binding domain; VEGF;
vascular endothelial growth factor; VEGF type 2 receptor; KDR; Flt-4;
VEGF type 3 receptor; VEGF-C; VEGF-D; signal transduction; anglogenesis;

lymphangiogenesis

Homo sapiens

Human wild-type VEGF-D monomer SEQ ID 3.

(first entry)

01-APR-2003

ABB84621;

ABB84621 standard; protein; 109 AA.

φ

```
This sequence represents a 109 amino acid truncated human VEGF-D (vascular endothalial growth factor D), lacking both the N- and C-terminal regions. The invention relates to a monoclonal antibody, or fragments thereof, which is specifically reactive with the truncated human VEGF-D, and methods of preparing the antibody. The antibody of the invention interfers with the binding of VEGF-D to the VEGF receptors VEGR-2 and VEGR-3, but does not interfers with the binding of VEGF-D to these receptors and additionally is not reactive with VEGF-C. The these receptors and additionally is not reactive with VEGF-C. The carticoly may be used to treat disorders associated with vascular permeability, endothelial cell proliferation, angiogenesis, lymphangiogenesis, neovascularisation and endothelial cell for inventional cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial factorial cell factorial modifical cell factorial factorial cell factorial cell factorial modifical cell factorial cell factorial modifical cell factorial cell factorial modifical cell factorial cell factorial modifical cell factorial cell factorial modifical cell factorial cell factorial modifical cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial cell factorial 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel compositions comprising antibodies reactive to vascular endothelial growth factor-D, useful for treating, e.g. angiogenesis, lymphogiogenesis and neovascularization disorders.
                                                                                                                                                                                                                                                                                           Truncated VEGF-D; vascular endothelial growth factor; human; monoclonal antibody; VEGF receptor; VEGFR-2; VEGFR-3; vascular permeability disorder; endothelial cell proliferative disorder; angiogenic disorder; lymphanglogenic disorder; neovascularisation disorder; endothelial cell differentiation disorder; endothelial cell differentiation disorder; cancer; diabetic retinopathy; psoriasis; arthropathy; pulmonary oedema; detection; diagnosis; imaging; lymphatic vasculatures
                                                        AAB11931 standard; protein; 109 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Fig 1; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US031332.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0113254P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0134556P.
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                             Human truncated VEGF-D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Achen MG, Stacker SA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vasculature in tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-442498/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200037025-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-MAY-1999;
                                                                                                                                                                              20-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JUN-2000.
                                                                                                                      AAB11931;
RESULT 9
                               AAB11931
```

```
This invention describes a novel single-chain dimeric polypeptide which binds to extracellular ligand-binding domain of vascular endothelial growth factor (VEGF) type 2 receptor (KDF) or VEGF type 3 receptor (Flt-4). The polypeptide of the invention compises two receptor-binding sites of which one is incapable of binding to a ligand-binding domain of the receptor, and one is incapable of effectively binding to a ligand-binding domain of the receptor, wand at least one monomer of the dimeric polypeptide is derived from VEGF, VEGF-C or VEGF-D, where the polypeptide is capable of binding to the receptor, but incapable of activating the receptor. The polypeptide of the invention is useful for preparing a medicament for preventing or treating a disease or condition involving increased signal transduction from, or an increased activation of a VEGF crope 2 or type 2 receptor e.g. for inhibiting anglogenesis or type 2 or type 2 represents a human single-chain VEGF-D monomer which can be modified and used in the construction of a VEGF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel single-chain dimeric polypeptide for inhibiting angiogenesis, bi to extracellular ligand-binding domain of vascular endothelial growth factor type 2/type 3 receptor but does not activate the receptor.
                                                                                                                                                                                                                                                                                                                                                                                                              <u>-</u>6
                                                                                                                                                                                                                                                                                                                                                                                                              /note= "This residues is described as Gln in Claim
                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                ρχ
                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    based KDR antagonist described in the disclosure of the invention
                                                                                                                                                                                                                                                                                                                /note= "region of monomer likely to be modified mutation as described in claim 9"
                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "region of monomer likely to be modified mutation as described in claim 9"
                                                                                                                                                                                                                                                                     to be modified
                                                                                                                                                                                                                                                                                                                                                                "region of monomer likely to be modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 109;
                                                                                                                                                                                                                                                     8. .18 /note= "region of monomer likely mutation as described in claim 9"
                                                                                                                                                                                                                                                                                                                                                                               mutation as described in claim 9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6;
21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 43;
Pred. No.
                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 9; Page 66; 71pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70.5%; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-APR-2002; 2002WO-DK000233.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-APR-2001; 2001DK-0000578.
06-APR-2001; 2001US-0282239P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MAXY-) MAXYGEN HOLDINGS LTD.
                                                                                                                                                                                                                                                                                                                                                 55. .60
/note= "1
                                                                                                                                                                                                                                                                                                                                                                                                                              .86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Boesen TP, Halkier T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-058505/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200281520-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                    Region
```

.; 0

Gaps

ö

70.5%; Score 43; DB 3; Length 109; 100.0%; Pred. No. 21; 0; Mismatches 0; Indels

9; Conservative

Matches

Local Similarity

Query Match

2 ISVPLTSVP 10

ò 유

84

|||||||||| 76 ISVPLTSVP

RESULT 10 ABB84621

```
Stacker S;
WPI; 2003-058505/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200182870-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAM4793.
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LD XX AXX BE WAY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY AXX BY
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "This wild type Phe residue is optionally replaced
by Arg in the second monomer unit of the VEGF-D dimer
(see Claim 11)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     In the first monomer unit of the VBGF-D dimer if the E57R mutation has not occurred (see Claim 16) and is optionally replaced hit be E57R mutation has occurred. The claim describes this residue as Ser but is shown as if in the sequence listing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "This wild-type Asn residue is optionally replaced by Arg in the second monomer unit of the VBGF-D dimer (See Claim 11)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "This wild type Ile residue is optionally replaced by Arg or Glu in the second monomer unit of the VEGF-D dimer (see Claim 16)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "This wild type Thr residue is optionally replaced by Arg or Glu in the second monomer unit of the VEGF-D dimer (see Claims 11 and 16)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    replaced
                                                                                                                                                                                                                                                                                                                        Human; single-chain; extracellular ligand-binding domain; VEGF;
vascular endothelial growth factor; VEGF type 2 receptor; KDR; Flt-4;
VEGF type 3 receptor; VEGF-C; VEGF-D; signal transduction; angiogenesis;
lymphangiogenesis; mutant; mutein; variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= E57R
/note= "Wild type Gln is replaced by Arg in the first
monomer unit of the VEGF-D dimer (See Claim 11) and is
optionally replaced if the $10R/E mutation has occurred
(see Claim 16)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "This wild type Phe residue is optionally replac
by Arg or Glu in the second monomer unit of the VEGF-D
dimer (see Claims 11 and 16)"
   Gaps
   .
0
   Indels
   ö
   Mismatches
                                                                                                                                                                                                                                                                                          Human VEGF-D monomer unit E57R variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                       ABG73750 standard; protein; 109 AA
   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-APR-2002; 2002WO-DK000233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-APR-2001; 2001DK-00000578.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MAXY-) MAXYGEN HOLDINGS LTD
                                                                                                                                                                                                                                                    (first entry)
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Boesen TP, Halkier T;
                                     2 ISVPLTSVP 10
                                                                             84
                                                                           76 ISVPLTSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200281520-A2
                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                    01-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-OCT-2002
 6
                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                               ABG73750;
                                                                                                                                                                                                                                                                                                                                                                                                                              Ношо
                                                                                                                                   Matches
                                                                       a
                                     8
```

```
This invention describes a novel single-chain dimeric polypeptide which binds to extracellular ligand-binding domain of vascular endothelial growth factor (WEGF) type 2 receptor (KDR) or VEGF type 3 receptor-binding sites of which one is capable of binding to a ligand-binding domain of the receptor, and at least one monomer of the dimeric domain of the receptor, and at least one monomer of the dimeric polypeptide of the invention is useful for preparing a receptor. The polypeptide of the invention is useful for preparing a medicament for preventing or treating a disease or condition involving increased signal transduction from, or an increased activation of a VEGF or type 2 or type 3 receptor e.g. for inhibiting anglogenesis or monomer unit used in the construction of a VEGF-D dimer described in the monomer unit used in the construction of a VEGF-D dimer described in the construction. In one instance a polypeptide is claimed comprising a first monomer derived from VEGF-D having at least one mutation selected from the group consisting of 100 NJR, TJSR, FJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, RJSR, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
Novel single-chain dimeric polypeptide for inhibiting angiogenesis, bi to extracellular ligand-binding domain of vascular endothelial growth factor type 2/type 3 receptor but does not activate the receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse; vascular endothelial growth factor-D; VEGF-D; proliferation; lymph vessel endothelial cell; VEGF receptor-3; neoplastic disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70.5%; Score 43; DB 6; Length 109; 100.0%; Pred. No. 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Preu.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mouse VEGF-D VHD domain SEQ ID NO 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAM47933 standard; protein; 110 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lymph vessel endothelial cell;
VEGF-PDGF homology domain; VHD
                                                                                                                                                                                                                       Claim 11; Page; 71pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-MAY-2001; 2001WO-US014295.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-MAY-2000; 2000US-0201421P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76 ISVPLTSVP
```

α

ö

```
The invention Fractes to a mectual soft administering to a cell bearing the receptor an active amount of a comprising administering to a cell bearing the receptor an active amount of a composition comprising a polypeptide having at least 90%, preferably 95%, sequence identity with the mouse VEGF-D polypeptide or its fragment. The polypeptide identity with the mouse VEGF-D polypeptide or its fragment. The polypeptide is pecifically activates VEGF receptor-3 which results in proliferation of ymph vessel endothelial cells. The polypeptide is useful for activating only VEGF receptor-3 and is therefore useful for stimulating of proliferation and/or maintaining of only lymph vessel endothelial cells. The polypeptide is also useful in the diagnosis of a neoplastic disease characterized by an increase in lymph vessel endothelial cells. The mouse VEGF-D has two isoforms. The longer amino acid sequence designated mVEGF-D (Compared to the shorter isoform mVEGF-D2, which diverges after residue 112. The present sequence is that of the VEGF-DDGF homology domain (VHD), compared residues 92-201 of the full length mouse VEGF-D2 protien of
                                                                   Specific activating of VEGF receptor-3, useful for stimulating proliferation and/or maintaining of only lymph vessel endothelial cells, by administration of a polypeptide having high sequence identity with the mouse VEGF-D polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Growth factor; human; dimer; cysteine knot; cellular inclusion body;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Preparing active growth factor dimers from inclusion bodies in high yield.
                                                                                                                                                                                            invention relates to a method for activating only vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human growth factor protein fragment FIGF178 (VEGF-D178).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70.5%; Score 43; DB 5
100.0%; Pred. No. 21;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GBFB ) GES BIOTECHNOLOGISCHE FORSCHUNG MBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY08287 standard; protein; 178 AA
                                                                                                                                                        Claim 1; Page 41; 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97DE-01048734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97DE-01048734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-JUL-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mueller C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-278785/24.
                  2002-049310/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ISVPLTSVP
                                  N-PSDB; ABA05427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 110 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DE19748734-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-MAY-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaerst U,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY08287;
                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

Length 110;

5

Indels

Erdmann H;

Weich H,

Rinas U,

```
New endothelial growth factor polypeptide and polynucleotides, useful for diagnosing, preventing, and treating cancer and other conditions or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Encoded by TAA, an in frame stop codon which interrupts the coding region as shown in Figure 1A-B. This site is the end of the protein sequence represented in SDQ ID 1 of the Sequence listing"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human; endothelial growth factor; cytostatic; cancer; angiogenesis;
                          This invention describes the novel preparation of biologically active dimers of recombinant human growth factors of the cysteine knot family starting from cellular inclusion bodies. Such dimers are are useful in pharmaceutical compositions and the method provides yields of 31-39.7% in examples, compared with about 10% for the conventional method (see Biochemistry, 28 (1989) 2956). AAY08278-Y08301 are human growth factor protein fragments used in the method of the invention
                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell proliferation; revascularisation; amputation; vasculogeneais; transplant; brain; breast; intestine; kidney; lung; ovary; pancreas; prostate; uterus; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention describes a novel human endothelial growth factor polypeptide which has cytostatic activity. The polypeptide and its encoding polynucleotide are useful in the diagnosis, prevention, and treatment of cancer and other conditions or diseases involving
                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Region not represented in SEQ ID 1 of
                                                                                                                                                                                             Length 178
                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diagnosing, preventing, and treating cancer and other c
diseases involving angiogenesis and cell proliferation.
                                                                                                                                                                                          70.5%; Score 43; DB 2;
100.0%; Pred. No. 35;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                         ABG73779 standard; protein; 287 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence listing"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Fig 1A-B; 28pp; English.
Claim 14; Page 9; 14pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Murry LE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-JAN-2002; 2002US-00044622.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-00788812
                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                            Similarity 100.
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (INCY-) INCYTE PHARM INC.
                                                                                                                                                                                                                                                                                          153 İSVPLTSVP 161
                                                                                                                                                                                                                                                             2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bandman O, Goli SK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-182635/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human NVR protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; ABQ77105.
                                                                                                                                                             Sequence 178 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2002155538-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                       03-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                         ABG73779;
                                                                                                                                                                                             Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MVR;
                                                                                                                                                                                                                                                                                                                                            RESULT 14
                                                                                                                                                                                                                                                                                                                                                             ABG73779
                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
```

angiogenesis and cell proliferation. NVR may also be used to

```
revascularisation following traumatic amputation and surgical product reconstruction or added to a tissue culture to promote vasculogenesis in tissues for autologous or heterologous transplant. Antagonists or inhibitors of NVR may be used to suppress or prevent angiogenesis and thus prevent the growth and development of cancers such as cancer of the brain, breast, intestine, kidney, lung, ovary, paroreas products of the uterus. The products of the invention can be used for gene therapy. This sequence represents the human NVR protein described in the disclosure of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vascular endothelial growth factor; VEGF-D; angiogenesis; modification; acceleration; wound healing; tissue; organ; transplants; collateral circulation; infarction; arterial stenosis; coronary artery disease; inhibition; cancer; treatment; diabetic retinopathy; lung disorders; blood circulation; gaseous exchange; chronic obstructive airway disease; intestinal malabsorptive syndrome; biopsy; metastatic risk; detection; diagnosis; congestive heart failure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus vascular endothelial growth factor D2 (VEGF-D2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYHE-) UNIV HELSINKI LICENSING LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW53243 standard; protein; 321 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96NU-00003554.
96US-0031097P.
97AU-00004954.
97US-0038814P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96AU-00001825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97AU-00007435.
97US-0051426P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97WO-US014696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  168 ISVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Achen MG, Wilks AF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-179057/16.
                                                                                                                                                                                                                                                                                                                                 Sequence 287 AA;
                                                                                                                                                                                                                                                                     the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9807832-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-AUG-1996;
23-AUG-1996;
11-NOV-1996;
14-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-FEB-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-FEB-1997
10-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW53243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW53243

ID AAW5

XX AAW AAW5

XXX AAW6

XXX AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AAG6

XW AA
8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

The sequence is that of mouse lung vascular endothelial growth factor D2

Claim 16; Page 64-65; 101pp; English.

New isolated vascular endothelial growth factor-D - used to develop products for use in e.g. modifying angiogenesis or treating lung, heart or intestinal disorders.

Stacker SA, Alitalo K;

N-PSDB; AAV20809

```
(VEGF-D2). VEGF-D2 can be used for e.g. acceleration of angiogenesis in wound healing, tissue or organ transplantation, or to establish collateral circulation in tissue infarction or arterial stenosis, such as coronary artery disease, and inhibition of angiogenesis in the treatment of lung disease, and inhibition of angiogenesis in the treatment of thus disease, to improve blood circulation in the lung treatment of lung disease, to improve blood circulation in the lung and/or assess exchange between the lungs and the blood stream or to improve blood circulation to the heart and 02 gas permeability in cases of cardiac insufficiency, to improve blood flow and gaseous exchange in chronic obstructive airway disease, or to treat malabsorptive syndromes in the intestinal tract. Quantitation of VEGF-D in cancer bloops, specimens may be useful as an indicator of fluture metastatic risk. Antagonists can be used for treating accomditions such as congestive heart failure, involving accumulations of fluid in the lung resulting from increases in viscular permeability. The products can also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70.5%; Score 43; DB 2; Length 321;
100.0%; Pred. No. 65;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                for detection and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    168 ISVPLTSVP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 321 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
           $$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
G
                                                                                                                                                                                                                                                                                                                                                                                                                  ö
```

Gaps ; 0

6; Length 287; 0; Indels

DB 58;

Score 43; DB 6; Pred. No. 58; 0; Mismatches

70.5%; Scc... 100.0%; Pre

ö

Search completed: April 1, 2005, 09:18:16 Job time : 83.0274 secs

THIS PAGE BLANK (USPTO)

```
4 05:33:22 2005
Mon Apr
```

```
100.0%; Score 61; DB 9; Length 11; 100.0%; Pred. No. 0.0022; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 11; Conserv
RESULT 2
US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-761-636A-7
 LENGIH: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Appli
Sequence 23, Appl
Sequence 26, Appl
Sequence 27, Appl
Sequence 13, Appl
Sequence 11, Appl
Sequence 18, Appl
Sequence 18, Appl
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
                                                                                          April 1, 2005, 09:26:18 ; Search time 270.329 Seconds (without alignments) 13.493 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                   Published Applications AA:

1. (9912_6/ptodata//pubpaa/US07_PUBCOMB.pep:*

1. (9912_6/ptodata//pubpaa/PCT_NEW_PUB.pep:*

1. (9912_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

1. (9912_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1. (9912_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US010C_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US010C_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US010C_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US010C_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US010_PUBCOMB.pep:*

2. (9912_6/ptodata/2/pubpaa/US00_NEW_PUB.pep:*

             GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-761-636A-7

US-09-761-636A-25

US-09-761-636A-25

US-09-761-636A-25

US-09-761-636A-13

US-09-761-636A-13

US-10-139-876-11

US-10-139-876-11

US-10-260-539-18

US-09-761-636A-1

US-09-91-636A-1

US-09-91-636A-1

US-09-219-345A-1
                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-779-731-1
                                                                                                                                                                                                                                                   1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                              Published Applications AA:*
                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                   OM protein - protein search, using sw model
                                                                                                                                                                                                          BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-7
61
1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       111
111
111
111
100
811
811
96
1009
1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.4
888.5
888.5
770.5
770.5
770.5
770.5
770.5
                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45.5
                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                  Sequence:
                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š.
```

```
Sequence 11, Appl Sequence 11, Appl Sequence 119, Appl Sequence 22, Appl Sequence 26, Appl Sequence 26, Appl Sequence 11, Appl Sequence 12, Appl Sequence 14, Appl Sequence 13, Appl Sequence 13, Appl Sequence 13, Appl Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli
                                             Sequence 9, 7
Sequence 9, 7
Sequence 9, 7
Sequence 3, 8
Sequence 3, 8
Sequence 3, 8
                                                                                                                                                                                                                                                                                                                                                                      Sequence 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PLILING DATE: 2000-01-18
PRIOR PLILING DATE: 2000-01-18
PRIOR PLILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 7, Application US/09761636A; Patent No. US20020065218A1; GENERAL INFORMATION:
```

Gaps

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INCURSILLOW:
GENERAL INCURSILLOW:
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
ITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/176,536A
CURRENT PILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-05-16
SPIOR FILING DATE: 2000-05-16
SOFTWARE: PREENTIN VEYENON 3.0
SOFTWARE: PREENTIN VEYENON 3.0
SEQ ID NO 25
LENGTH: 11
APPLICANT: HUGHES, Richard

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT FILING DATE: 2001-01-18

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR FILING DATE: 2000-01-18

PRIOR FILING DATE: 2000-01-18

NUMBER OF SEQ ID NOS: 34

SOFTWARE: Patentin version 3.0

SEQ ID NO 24

LENGTH: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 13, Application US/09761636A

Batent No. US20020065218A1

GRNERAL INFORMATION:
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Steven
APPLICANT: CENDRON, Angela
APPLICANT: CENDRON, Angela
APPLICANT: CENDRON, Angela
APPLICANT: CENDRON, Angela
APPLICANT: ON UNGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPERRONE: 1064/445505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 54; DB 9; Length 11; Pred. No. 0.03; 0; Indels 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 9; Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 52; DB 9;
Pred. No. 0.063;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 25, Application US/09761636A Patent No. US20020065218A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                  88.5%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 72.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 72.7
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CISLPISSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CITIPLISLPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-761-636A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-761-636A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                       APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PLING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
NUMBER OF SED ID NOS: 34
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 26, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:

APPLICANT: ACHEN, Marc

APPLICANT: HUGHES, Richard

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT APPLICATION NUMBER: US 60/176,293

PRIOR PILING DATE: 2000-01-18

PRIOR PILING DATE: 2000-01-18

PRIOR PILING DATE: 2000-01-18

NUMBER OF SEQ ID NOS: 34

SOFTWARE: PatentIn Version 3.0

SEQ ID NO 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 96.7%; Score 59; DB 9; Length 11; Best Local Similarity 90.9%; Pred. No. 0.0046; Matches 10; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 57; DB 9; Length 11;
Pred. No. 0.0098;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-761-636A-24
Sequence 24, Application US/09761636A
Patent No. US20020065218A1
GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
           Sequence 23, Application US/09761636A
Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 93.4%;
Best Local Similarity 81.8%;
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CLSVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CVSVPLTTVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
US-09-761-636A-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-761-636A-26
```

ö

g

ï

```
WESCUL.

Sequence 11, Application US/10139876

Sequence 11, Application US/10139876

Publication No. US202020123481A1

GENERAL INFORMATION:

APPLICANT: Oliviero, Salvatore

TITLE OF INVENTION: C-F08 Induced Growth Factor (Figf) And Dna Encoding Same

TITLE OF INVENTION: C-F08 Induced Growth Factor (Figf) And Dna Encoding Same

FILE REFERENCE: 35784/205172

CURRENT FILING DATE: 2002-05-07

PRIOR FILING DATE: 1998-03-18

PRIOR APPLICATION NUMBER: PCT/1B96/0113

PRIOR APPLICATION NUMBER: GB96.09-30

PRIOR FILING DATE: 1996-06-13

PRIOR FILING DATE: 1996-06-13

PRIOR FILING DATE: 1995-09-29

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                Score 45.5; DB 9; Length 10; Pred. No. 0.65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 70.5%; Score 43; DB 13; Length 49; Best Local Similarity 100.0%; Pred. No. 8.5; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                          Mismatches
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 18, Application US/10086623; Publication No. US20020164710A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: PEPTIDE
LOCATION: (1)...(48)
CTHER INFORMATION: segment of FIGF
US-10-139-876-11
                                                                                                                                                                                                                                                                                74.6%;
                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 90.5
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: ERIKSSON, Ulf
APPLICANT: AASE, Karin
APPLICANT: LI, Xuri
APPLICANT: PONTEN, Annica
                                                                                                                                                                                                                                                                                                                                                                  1 CISVPLTSVPC 11
                                                                                                                                                                                                                                                                                                                                                                                        1 CISVPL-SVPC 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UUTELA, Marko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALITALO, Kari
OESTMAN, Arne
                                                                                                                                                                                        TYPE: PRT; ORGANISM: Homo sapiens
US-09-761-636A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-086-623-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 8
                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
```

```
### APPLICANT: HELDIN, Carl Henrik

TITLE OF INVENTION: PLATELET DERIVED GROWTH FACTOR D, DNA CODING THEREFOR AND USES THE
FILE REFERENCE: 1064/4481322

CURRENT APPLICATION NUMBER: US 60/107,852

PRIOR FILING DATE: 1998-11-10

PRIOR FILING DATE: 1998-11-28

PRIOR FILING DATE: 1998-12-28

PRIOR PLICATION NUMBER: US 60/157,108

PRIOR PLING DATE: 1999-10-05

PRIOR PLING DATE: 1999-10-05

PRIOR PLING DATE: 1999-10-05

PRIOR PELING DATE: 1999-11-0

PRIOR PELING DATE: 1999-11-0

PRIOR PELING DATE: 1999-11-0

PRIOR PELING DATE: 1999-11-0

PRIOR PELING DATE: 1999-11-0

PRIOR PELING DATE: 1999-11-10

PRIOR PELING DATE: 1999-11-10

PRIOR PLING DATE: 1999-11-10

PRIOR PELING DATE: 1999-11-10

PRIOR PLING DATE: 1099-11-10

PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: PUNTELA, Marko

APPLICANT: PUNTELA, Marko

APPLICANT: OBSTANA, ARIA

APPLICANT: OBSTANA, ARIA

APPLICANT: HELDIN, CARI-Henrik

TITLE OF INVENTION: PLATELET DERIVED GROWTH FACTOR D, DNA CODING THEREFOR AND USES THI

FILE REPERENCE: 1064/44933C2

CURRENT FILING DATE: 2002-10-01

FRIOR PILING DATE: 2000-03-04

FRIOR FILING DATE: 1998-11-10

FRIOR PILING DATE: 1998-11-10

FRIOR PILING DATE: 1998-12-28

FRIOR FILING DATE: 1998-12-28

FRIOR PILING DATE: 1998-10-04

FRIOR FILING DATE: 1999-10-04

FRIOR FILING DATE: 1999-10-05

FRIOR FILING DATE: 1999-10-05

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-10-05

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

FRIOR APPLICATION NUMBER: US 09/438,046

FRIOR PRING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc feature
OTHER INFORMATĪON: PDGF/VEGF-homology domain of VEGF-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70.5%; Score 43; DB 13;
100.0%; Pred. No. 14;
tive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18, Application US/10260539
Publication No. US20030073637A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ERIKSSON, Ulf
APPLICANT: AASB. Karin
APPLICANT: LI, Xuri
APPLICANT: PONTEN, Annica
APPLICANT: UUTELA, Marko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58 ISVPLTSVP 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-086-623-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

;

ઠે g

```
US-09-219-345A-1

US-09-219-345A-1

US-09-219-345A-1

Sequence 1, Application US/09219345A

Patent No. US20020127222A1

SEQUENCE NO. US2002012722A1

GENERAL INFORMATION:

TITLE OF INVENTION:

TITLE OF INVENTION:

TITLE OF INVENTION:

MELANOWAS

FILE REFERENCE: 1064/44385 Marc ACHEN

CURRENT FILING DATE: 1998-12-23

PRIOR PLICATION NUMBER: US 60/087,392

PRIOR PLICATION NUMBER: US 60/087,392

PRIOR FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 11

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-10-79-131-1
US-10-79-131-1
Sequence 1, Application US/10779731
Sequence 1, Application No. US20040141917A1
SEQUENCE 1. INFORMATION:
APPLICANT: ACHEN, MARC G.
APPLICANT: STACKER, Steve A.
TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF FILE REFERENCE: ACHEN et al. 1064-44660
CURRENT APPLICATION NUMBER: US/10/779,731.
CURRENT FILING DATE: 2004-02-18
PRIOR PELICATION NUMBER: 09/469,186
PRIOR FILING DATE: 1999-12-21
PRIOR PELICATION NUMBER: 60/113,254
PRIOR PELICATION NUMBER: 60/113,254
PRIOR APPLICATION NUMBER: 60/113,254
PRIOR APPLICATION NUMBER: 60/113,254
PRIOR PELING DATE: 1999-12-21
PRIOR PELING DATE: 1999-12-21
PRIOR SEQ ID NOS: 1
SOFFWARE: PATEURING DATE: 1999-05-17
SOFFWARE: PATEUR OF ACHEN OF SEQ ID NOS: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 70.5%; Score 43; DB 9; Length 109; Best Local Similarity 100.0%; Pred. No. 19; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                  Query Match 70.5%; Score 43; DB 9; Length 109; Best Local Similarity 100.0%; Pred. No. 19; Matches 9; Conservative 0; Mismatches 0; Indels
PRIOR FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin version 3.1
SEQ ID NO 3
LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 ISVPLTSVP 84
                                                                                                                                                                                                                                                                                                 2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                              76 ISVPLTSVP 84
                                                                                                                      ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-956-095-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-219-345A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/09761636A
; Sequence 1, Application US/09761636A
; Patent No. US20020065218A1
; GENERAL INFORMATION:
; APPLICANT: ACHEN, Marc
; APPLICANT: GRENKON, Angela
; APPLICANT: HUGHES, Richard
; APPLICANT: HUGHES, Richard
; APPLICANT: HUGHES, Richard
; APPLICANT: HUGHES, Richard
; TILE REFERENCE: 1064/48505 Achen et al
; TILE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
; FILE REFERENCE: 1064/48505 Achen et al
; CURRENT APPLICATION NUMBER: US/09/761,636A
; CURRENT APPLICATION NUMBER: US 60/176,293
; PRIOR PILING DATE: 2000-01-18
; PRIOR PLLING DATE: 2000-01-18
; PRIOR PLLING DATE: 2000-05-16
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
: LENTH: 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
OTHER INFORMATION: Amino acid residues of Vall01-Pro196 of VEGF-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                     ó.
                                                                                                                                                                                                                                   70.5%; Score 43; DB 14; Length 81; 100.0%; Pred. No. 14; 0; Indels tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%; Pred. No. 17;
Matches 9; Conservative 0; Mismatches 0; Indels
         ; SOFTWARE: Patentin version 3.1
; SEQ ID NO 18
; LENGTH: 81
; TYPE: PRT
; ORGANISM: Homo sapiens
; FRATURE:
; NAME/KEY: misc_feature
; NAME/KEY: misc_feature
; OTHER INFORMATION: PDGF/VEGF-homology domain of VEGF-D
US-10-260-539-18
                                                                                                                                                                                                                                             Query Match 70.5
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68 İSVPLTSVP 76
                                                                                                                                                                                                                                                                                                                                     2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                      58 ISVPLTSVP 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
US-09-761-636A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
US-09-956-095-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
```

ð g

```
ö
                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: ACHEN, Marc G
APPLICANT: ACHEN, Marc G
APPLICANT: ACHEN, Steven A
TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL
TITLE OF INVENTION: A RAWWHY PACTOR RECEPTOR-3 AND USES THEREOF
FILE REFERENCE: Achen&Stacker-mouse VEFG-D
CURRENT FAPLICATION NUMBER: US/09/847,524
CURRENT FILING DATE: 2001-05-03
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PACENTIN Ver. 2.0
ENGTHARE: PACENTIN Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10, Application US/10868549

Publication No. US20050043235A1

GENERAL INFORMATION:

APPLICANT: Alitalo et al.

TITLE OF INVENTION: USE OF VEGF-C OR VEGF-D IN RECONSTRUCTIVE SURGERY

FILE REFERENCE: 28967/39117A

CURRENT PILING DATE: 2004-06-14

PRIOR FILING DATE: 2003-06-12

PRIOR FILING DATE: 2003-06-12

PRIOR FILING DATE: 2003-06-12

PRIOR FILING DATE: 2003-06-12

NUMBER OF SEQ ID NOS: 25

SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 70.5%; Score 43; DB 17; Length 134; Best Local Similarity 100.0%; Pred. No. 24; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                Query Match 70.5%; Score 43; DB 16; Length 109; Best Local Similarity 100.0%; Pred. No. 19; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 70.5%; Score 43; DB 10; Length 110; Best Local Similarity 100.0%; Pred. No. 19; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                       US-09-847-524-6
; Sequence 6, Application US/09847524
: Publication No. US20030166523A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Murinae gen. sp. US-09-847-524-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 ISVPLTSVP 109
                        ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-779-731-1
                                                                                                                                                                                                               2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ISVPLTSVP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 ISVPLTSVP 10
                                                                                                                                                                                                                                                          76 ISVPLTSVP 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77 ISVPLTSVP 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-868-549-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 10
LENGTH: 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-868-549-10
LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
Search completed: April 1, 2005, 10:36:33
Job time : 270.329 secs
```

THIS PAGE BLANK (USPTO)

Sequence 9, Appli Sequence 9, Appli Sequence 9, Appli Sequence 2, Appli Sequence 15, Appli Sequence 15, Appli Sequence 13, Appli Sequence 33, Appli Sequence 33, Appli Sequence 33, Appli Sequence 34, Appli Sequence 36, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli

```
5332671-3

US-09-915-795-9

US-09-817-534-4

US-09-296-275-9

US-08-915-795-8

US-09-847-524-2

US-09-296-276-8

US-09-296-276-8

US-09-296-276-8

US-09-296-1033

US-09-538-092-1033

US-09-586-098-33

US-08-699-769-33

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20

US-08-69-0637C-20
                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
US-09-469-185-1
'Sequence 1, Application US/09469185
'Patent No. 6531185
                                                                                                                                                                                                                                                                                                                                                                        US-09-469-186-1

; Sequence 1, Application US/09469186

; Patent No. 6383484

; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
US-09-469-186-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54 CNEESLIC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CNEESLIC 8
788.3
778.3
778.3
778.3
771.7
771.7
771.7
771.7
771.7
771.7
771.7
771.7
771.7
771.7
771.7
771.7
 SEQ ID NO 1
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Appli
Sequence 1, Appli
Sequence 8, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 109, Appli
Sequence 109, Appli
Sequence 11286, Appli
Sequence 11286, Appli
Sequence 11286, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 15, Appl
Sequence 11, Appl
Sequence 21, Appli
Sequence 10, Sepli
Patent No. 5219739
Patent No. 5219739
Patent No. 5219739
Patent No. 5219739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                     April 1, 2005, 07:04:23; Search time 17.7534 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-125-642C-15
US-09-431-888-11
US-09-431-888-2
5194596-17
                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                            513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5219739-17
5219739-18
                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5219739-18

    protein search, using sw model

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5194596-17
                                                                                                                                                                                                                                                 Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patents AA:*
                                                                                                                                                                                                                                                                                                                                           seq length: 0
seq length: 200000000
                                                                                                                                                                  US-09-761-636A-6
46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          四
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC 8
                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Issued
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                             OM protein
                                                                                                                                                                                                                                                                                                                                           Minimum DB
Maximum DB
                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2222210987654321098765432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š.
                                                                                                           Run
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: ACHEN, MACC G.
APPLICANT: ACHEN, MACC G.
TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF;
TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF;
TILE REPRENCE: ACHEN et al. 1064-44660
CURRENT APPLICATION NUMBER: US/09/469,185
CURRENT FILING DATE: 1999-12-21
EARLIER FILING DATE: 1998-12-21
EARLIER FILING DATE: 1998-12-11
EARLIER FILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 1
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
APPLICANT: ACHEN, MARC G.
APPLICANT: STACKER, Steve A.
TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF
FILE REFERENCE: ACHEN et al.1064 44660
CURRENT APPLICATION NUMBER: US/09/469,186
CURRENT FILING DATE: 1999-12-21
EARLIER APPLICATION NUMBER: 60/113,254
EARLIER PILING DATE: 1998-12-21
EARLIER PILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 1
SOFTWARE: PATENTIN US: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 46; DB 3; Length 109; Pred. No. 0.46; 0; Mismatches 0; Indels
```

```
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-431-888-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
US-09-296-275-3
                                                                                                                                                                                                                                                                                                                                     US-08-915-795-3
                                                                                                                                                                                                                                                                                                            RESULT 5
                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-431-888-8

US-09-431-888-8

US-09-431-888-8

Sequence 8, Application US/09431888A

Patent No. 6541008

GENERAL INFORMATION:

APPLICANT: Wise, Lyn M

APPLICANT: Savory, Loreen J

APPLICANT: Fleming, Stephen B

APPLICANT: Stacker, Stephen B

APPLICANT: Stacker, Stephen B

TITLE OF INVENTION: VASCULAR ENOTHELIAL GROWTH FACTOR-LIKE PROTEIN FROM ORF

TITLE OF INVENTION: RECEPTOR-2, AND USES THEREOF

TITLE OF INVENTION: RECEPTOR-2, AND USES THEREOF

TITLE OF INVENTION: RECEPTOR-2, AND USES THEREOF

TITLE OF INVENTION: RECEPTOR-2, AND USES THEREOF

TITLE OF INVENTION: RECEPTOR-2, AND USES THEREOF

TITLE OF INVENTION: RECEPTOR-2, AND USES THEREOF

TITLE APPLICATION NUMBER: 60/106,689

EARLIER APPLICATION NUMBER: 60/106,689

EARLIER APPLICATION NUMBER: 60/106,689

EARLIER PILING DATE: 1998-11-03

NUMBER OF SEQ ID NOS: 11

NUMBER OF SEQ ID NOS: 11

NUMBER OF SEQ ID NOS: 11
                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/10100037

Sequence 1, Application US/10100037

Sequence 1, Application US/10100037

GENERAL INFORMATION:

APPLICANT: ACHEN, Marc G.

TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF

FILE REFERENCE: ACHEN et al.1064.44660

CURRENT FILING DATE: 10510.10

FRIOR PAPLICATION NUMBER: 09/469,186

FRIOR PAPLICATION NUMBER: 09/469,186

FRIOR PAPLICATION NUMBER: 60/113,254

FRIOR APPLICATION NUMBER: 60/113,254

FRIOR APPLICATION NUMBER: 60/113,556

FRIOR APPLICATION NUMBER: 60/113,556

FRIOR PELING DATE: 1999-10-17

FRIOR PELING DATE: 1999-10-17

SEQ ID NO 1

LENGTH: 109
                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 46; DB 4; Length 109; 100.0%; Pred. No. 0.46; ative 0; Mismatches 0; Indels
                                                                                                                100.0%; Score 46; DB 4; Length 109, 100.0%; Pred. No. 0.46; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 8
                                                                                                                                                                 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.
Best Local Similarity 100.
Matches 8; Conservative
                      ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-469-185-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                          54 CNEESLIC 61
                                                                                                                                                                                                               1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC 8
                                                                                                                Query Match
Best Local Similarity
Matches 8; Conserv
LENGTH: 109
                                                                                                                                                                                                                                                                                                                                RESULT 3
US-10-100-037-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-100-037-1
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                              APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESSED SEDENCES.
ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
CITY: Washington
STATE: DC
COUNTRY: United States of America
ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%; Score 46; DB 3; Length 325; Best Local Similarity 100.0%; Pred. No. 1.3; Matches 8; Conservative 0; Mismatches 0; Indels
                  4; Length 197;
100.0%; Score 46; DB 4; Length 13
100.0%; Pred. No. 0.82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION: 536
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPh D.
REGISTRATION NUMBER: 26, 269
REFERENCE/DOCKET NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                         ; Sequence 3, Application US/08915795; Patent No. 6235713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 3, Application US/09296275; Patent No. 6689580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (202) 628-8844
TELEX: N/A
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGINAL SOURCE:
TISSUE TYPE: Human Breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 325 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (202, C- 002) 628-8844
                  Query Match 100.
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                            70 CNEESLIC 77
                                                                                                     1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
```

```
Query Match
Best Local Similarity 100.0%; Score 46; DB 3; Length 354;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEB: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D.
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/42983
TELERHONE: (202) 628-8800
TELERHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/296,275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1064/42983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Washington
STATE: DC
COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: MAIC G. ACHEN
APPLICANT: ANDREW F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: KATI ALITALO
TITLE OF INVENTION: GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/915,795
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-296-275-5; Sequence 5, Application US/09296275; Patent No. 6689580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY MACENT INFORMATION:
NAME: EVANS, Joseph D.
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 106
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 354 amino acide
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (202) 628-884
TELEFAX: (202) 628-8844
TELEX: N/A
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: Human Lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             146 CNEESLIC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-915-795-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
                                                                                                                                                                                                ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                        COUNTRY: United States of America
ZIP: 2005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/296,275
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match
100.0%; Score 46; DB
Best Local Similarity 100.0%; Pred. No. 1.3
Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5, Application US/08915795
Patent No. 6235713
GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
CORRESPONDENCE ADDRESS:
                               APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/915,795
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D.
REGISTRATION NUMBER: 26,269
REGISTRATION NUMBER: 26,269
TELEFRICE/DOCKET NUMBER: 1064/425
TELEFRICATION INFORMATION:
TELEFRICATION: (202) 628-8800
TELEFRIX: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: Human Breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: N/A
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 325 amino acids
TYPE: amino acid
         GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 117 CNEESLIC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CNEESLIC 8
                                                                                                                                                                                                                                                 Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Washington
STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-915-795-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
```

Gaps

. 0

```
PRIOR APPLICATION NUMBER: UB JULE 22
PRIOR FILING DATE: 1989-12-22
PRIOR PILING DATE: 1989-03-18
PRIOR PILING DATE: 1999-03-18
PRIOR PLING DATE: 1999-11-08
PRIOR PLING DATE: 1999-11-08
NUMBER OF SEQ ID NOS: 130
SOFTWARE: Patentin version 3.2
SEG ID NO 109
LENGTH: 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-169-079-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-214-982-1
                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Ferrell, Robert E.
APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Marika
APPLICANT: Karkainen, Marika
TITLE OF INVENTION: SCREENING AND THERAPY FOR LYMPHATIC DISORDERS INVOLVING
TITLE OF INVENTION: THE FLITA RECEPTOR TYROSINE KINASE (VEGFR-3)
FILE REPERENCE: 28967/35255A
CURRENT APPLICATION NUMBER: US/09/375,248
CURRENT FILING DATE: 1999-08-16
EARLIER APPLICATION NUMBER: PCT/US99/06133
EARLIER PILING DATE: 1999-03-26
NUMBER OF SEQ ID NOS: 28
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                     100.0%; Score 46; DB 4; Length 354; 100.0%; Pred. No. 1.5; vative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 46; DB 4; Length 354; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Sprengel, Jorg J
APPLICANT: Yon, Jeffery R
APPLICANT: Yon, Jeffery R
APPLICANT: Dismans, Josiena J.H.
APPLICANT: Gosiewska, Anna
APPLICANT: Dhanaraj, Sridevi N
APPLICANT: X, Jean
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-X
FILE REPRENCE: B0192.7001JUS00
CURRENT APPLICATION NUMBER: US/09/468,647A
CURRENT FILING DATE: 1999-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
2.09-46-647A-109
; Sequence 109, Application US/09468647A
; Patent No. 6783953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-375-248-6
; Sequence 6, Application US/09375248
; Patent No. 6764820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Gordon, Robert D
APPLICANT: Sprengel, Jorg J
APPLICANT: Sprengel, Jorg J
APPLICANT: Dijkmans, Josiena J.H.
APPLICANT: Gosiewska, Anna
                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 354 amino acids
FIVER: amino acid
STRANDEDNESS: single
FOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ITSSUE TYPE: Human Lung
US-09-296-275-5
      TELEPHONE: (202) 628-8800
TELEFAX: (202) 628-8844
                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ||||||||
146 CNEESLIC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                146 CNEESLIC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                         1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
        TELEFAX: VE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-375-248-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
APPLICANT: Malenae, Aria

APPLICANT: Valtola, Reija

APPLICANT: Valtola, Reija

APPLICANT: Valtola, Reija

APPLICANT: Valtola, Reija

APPLICANT: Useila, Lotta

TITEO OF INVENTION: Plt4 (VEGFR-3) as a Target for Tumor Imaging and Anti-Tumor Thera

FILE REFERENCE: 28113/34891

CURRENT APPLICATION NUMBER: US/09/169,079

CURRENT APPLICATION NUMBER: 08/901,710

EARLIER APPLICATION NUMBER: 08/340,011

EARLIER FILING DATE: 1994-07-09

EARLIER APPLICATION NUMBER: 08/257,754

EARLIER APPLICATION NUMBER: 08/257,754

EARLIER APPLICATION NUMBER: 07/959,951

EARLIER APPLICATION NUMBER: 07/959,951

SARLIER PILING DATE: 1992-10-09

NUMBER OF SEQ ID NOS: 22

SOFTWARE: PLANTANCE: PARCENTION NUMBER: 07/959,951

EARLIER PLANTANCE: PARCENT OF NUMBER: 07/959,951

EARLIER PLANTANCE: PARCENT OF NUMBER: 07/959,951

EARLIER PLANTANCE: PARCENT OF NUMBER: 07/959,951

EARLIER PLANTANCE: PARCENT OF NUMBER: 07/959,951

EARLIER PLANTANCE: PARCENT OF NUMBER: 07/959,951

EARLIER PLANTANCE: PARCENT OF NUMBER: 07/959,951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 46; DB 4; Length 354; 100.0%; Pred. No. 1.5;
                                                                                                                            100.0%; Score 46; DB 4; Length 354; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/09214982
Patent No. 6828426
GENERAL INFORMATION:
APPLICANT: Hirata, Yuichi
APPLICANT: Heatu, Yuichi
APPLICANT: Neau, Junichi
TITLE OF INVENTION: No. 6828426e1 VEGF-like Factor
FILE REFERENCE: 50026/014001
CURRENT APPLICATION NUMBER: US/09/214,982
CURRENT PILING DATE: 1999-01-14
EARLIER APPLICATION NUMBER: 8-185216 Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-169-079-22
; Sequence 22, Application US/09169079
; Patent No. 6824777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
                                                                                                                                                         Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Alitalo, Kari
TYPE: PRT
CRGANISM: Homo sapiens
US-09-468-647A-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                  146 CNEESLIC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESLIC 8
                                                                                                                                                                                                                                                        1 CNEESLIC 8
```

```
Search completed: April 1, 2005, 09:36:15
Job time : 18.7534 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
          62.5%;
       Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 78.3
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                            55 CNEEGVMC 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60 CNDESLEC 67
                                                                                     œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CNEESLIC 8
                                                                                  1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO:9:
LENGTH: 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5194596-9
                                                                                     8
                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-09-949-016-11286
US-09-949-016-11286
Sequence 11286, Application US/09949016
Fatent No. 681239
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REPRENCE: CLOU3307
CURRENT APLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
FRIOR APPLICATION NUMBER: 60/241,755
FRIOR APPLICATION NUMBER: 60/231,498
FRIOR FILING DATE: 2000-10-20
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
FRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14

US-09-847-524-6

US-09-847-524-6

Sequence 6, Application US/09847524

Patent No. 6689352

GENERAL INFORMATION:

APPLICANT: ACHEN, Marc G

TITLE OF INVENTION: GROWTH FACTOR RECEPTOR-3 AND USES THEREOF

TITLE OF INVENTION UNMER: US/09/847,524

CURRENT APPLICATION NUMBER: US/09/847,524

CURRENT FILING DATE: 2001-05-03

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PATENTIN VET. 2.0
                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                              100.0%; Score 46; DB 4; Length 354; 100.0%; Pred. No. 1.5; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4; Length 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.3%; Score 36; DB 4; Length 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 46; DB 4
100.0%; Pred. No. 1.5;
tive 0; Mismatches
; EARLIER FILING DATE: 1996-07-15
; NUMBER OF SEQ ID NOS: 34
; SCPTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 354
; 7YPE: PRT
; ORGANISM: Homo sapiens
US-09-214-982-1
                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Murinae gen. sp
US-09-847-524-6
                                                                                                                                                                                                                                                                                                                                                                146 CNEESLIC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154 CNEESLIC 161
                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-949-016-11286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 6
LENGTH: 110
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                     Patent No. 5194596

APPLICANT: TISCHER, EDMUND G.;ABRAHAM, JUDITH A.;FIDDES, JOHN
;C.;MITCHELL, RICHARD L.
TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
;GROWTH FACTOR

NUMBER OF SEQUENCES: 32

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/450,883

FILING DATE: 14-DEC-1989

PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.3%; Score 36; DB 6; Length 120; 75.0%; Pred. No. 28; ive 1; Mismatches 1; Indels
                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
Pred. No. 26;
```

THIS PAGE BLANK (USPTO)

Sequence 2, Appli Sequence 11, Appl Sequence 6, Appl Sequence 22, Appl Sequence 26, Appl Sequence 5, Appli Sequence 6, Appli Sequence 6, Appli Sequence 7, Appli Sequence 10, Appli Sequence 10, Appli Sequence 11, Appli Sequence 12, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli

Sequence 151, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 2, Appli Sequence 11, Appl

```
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: CENDROW, Angela
APPLICANT: CENDROW, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT PILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PLILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
PRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
US-09-956-095-2
US-09-219-345A-11
US-09-219-345A-11
US-09-375-006A-119
US-09-375-006A-119
US-09-375-006A-119
US-09-765-534B-2
4 US-10-262-538-26
4 US-10-262-538-26
4 US-10-262-538-26
4 US-10-262-538-26
4 US-10-262-538-26
4 US-10-264-740-6
5 US-10-761-694-5
7 US-10-761-636A-20
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-33
US-09-761-636A-31
US-09-761-636A-31
US-09-761-636A-31
US-09-761-636A-31
US-09-761-636A-31
US-09-761-636A-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 46; DB 9; L
100.0%; Pred. No. 1.3e+06;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-131-600-11
US-10-352-153-2
US-10-303-997B-11
US-10-439-337A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 6, Application US/09761636A; Patent No. US20020065218A1; GENERAL INFORMATION:
         8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CNEESLIC
    1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-761-636A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-761-636A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
US-09-761-636A-9
         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 8
       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6, Appli
Sequence 3, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 8, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                            (without alignments)
13.493 Million cell updates/sec
                                                                                                                                                                   April 1, 2005, 09:26:18 ; Search time 196.603 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUDII BRRGG APPLICATIONS AA!

1: (cgn2_6/ptodata/2/pubpaa/US07_PUBCCOMB.ppp:*

1: (cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US11NEW_PUB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US11NEW_PUB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US11NEW_PUB.pep:*

1: (cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

                            GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-9
US-09-761-636A-9
US-09-761-636A-1
US-09-956-095-3
US-09-219-345A-1
US-10-79-731-1
US-10-79-731-1
US-10-352-153-8
US-10-352-153-8
US-10-161-694-3
US-10-705-476-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                               1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published Applications AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                       OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                          BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                         US-09-761-636A-6
46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                      .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š.
                                                                                                                                                                      Run
```

ö

Gaps

; 0

Length 8; Indels

```
RESULT 5
US-09-956-095-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3, Application US/09761636A
; Sequence 3, Application US/09761636A
; Sequence 3, Application US/09761636A
; GENERAL INFORMATION:
    APPLICANT: ACHEN, Mac
    APPLICANT: GENERON, Angela
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    APPLICANT: HUGHES, Richard
    CURRENT APPLICATION NUMBER: US/09/76,293
; PRIOR FILING DATE: 2000-01-18
; PRIOR FILING DATE: 2000-01-18
; PRIOR FILING DATE: 2000-05-16
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 73
                                                                     APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 9
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
OTHER INFORMATION: Amino acid residues Vall01-Thr173 of VEGF-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
100.0%; Score 46; DB 9; Length 73;
Best Local Similarity 100.0%; Pred. No. 1;
Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/09761636A Patent No. US20020065218A1
Sequence 9, Application US/09761636A
Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens
US-09-761-636A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 CNEESLIC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
US-09-761-636A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-761-636A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
```

```
APPLICANT: ACHEN, Marc G.
APPLICANT: ACHEN, Marc G.
APPLICANT: ACHEN, Marc G.
APPLICANT: STACKER, Steven A.
ITILE OF INVENTION: WEFHODS FOR TREATING NEOPLASTIC DISEASE CHARACTERIZED BY
ITILE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR D EXPRESSION, FOR SCREENING
TITLE OF INVENTION: VASCULARIZATION OF TISSUE
TILE REPERENCE: 1064/48666PG
CURRENT APPLICATION NUMBER: US/09/956,095
CURRENT APPLICATION NUMBER: US/09/956,114
PRIOR PILING DATE: 2001-09-20
PRIOR PAPLICATION NUMBER: 60/234,196
PRIOR FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PATENTING VERSION 3.1
SEQ ID NO 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
APPLICANT: ATHEN, Water
APPLICANT: ATHEN, Water
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR PLING DATE: 2000-01-18
PRIOR PLING DATE: 2000-01-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN OF SEQ ID NOS: 34
SEQ ID NO :
SEQ ID NO :
LENGTH: 96
                                                                                                                                                                                                                                                                                                                                                                                                                   ; NAME/KEY: misc feature
; OTHER INFORMATION: Amino acid residues of Val101-Pro196 of VEGF-D
US-09-761-636A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 46; DB 9; Length 109; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 46; DB 9; Length 96; 100.0%; Pred. No. 1.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09219345A; Patent No. US20020127222A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/09956095
Patent No. US20020102260A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
, ORGANISM: Homo sapiens
US-09-956-095-3
                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46 CNEESLIC 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54 CNEESLIC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-219-345A-1
```

```
US-10-352-153-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-044-622-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                    TITLE OF INVENTION: EXPRESSION VECTORS AND CELL LINES EXPRESSING VASCULAR TITLE OF INVENTION: ENDOTHELIAL GROWTH FACTOR D, AND METHOD OF TREATING TITLE OF INVENTION: MELANOMAS FILE REFERENCE: 1064/44385 Marc ACHEN CURRENT APPLICATION NUMBER: US/09/219,345A CURRENT PELING DATE: 1998-12-23 PRIOR APPLICATION NUMBER: NP PP 1131 PRIOR FILING DATE: 1997-12-24 PRIOR PRIOR APPLICATION NUMBER: US 60/087,392 PRIOR FILING DATE: 1998-05-29 NUMBER OF SEQ ID NOS: 11 SOFTWARE: PARIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR FILING DATE: 1998-05-29 NUMBER OF SEQ ID NOS: 11 LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/10779731
; Bublication No. US20040141917A1
; Bublication No. US20040141917A1
; GENERAL INFORMATION:
    APPLICANT: ACHEN, Marc G.
    APPLICANT: ACHEN, Marc G.
    TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF
; TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF
; FILE REPERENCE: ACHEN US/10/779,731
; CURRENT APPLICATION NUMBER: US/10/779,731
; CURRENT FILING DATE: 2004-02-18
; PRIOR PELLING DATE: 1994-12-21
; PRIOR APPLICATION NUMBER: 60/113,254
; PRIOR PELLING DATE: 1998-12-11
; PRIOR APPLICATION NUMBER: 60/134,556
; PRIOR APPLICATION NUMBER: 60/134,556
; RINGR APPLICATION NUMBER: 60/134,556
; RINGR FILING DATE: 1998-12-17
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: PATENTIN UN VOS: 1
; SOFTWARE: PATENTIN UN VOS: 1
; LENGTH APPLICATION NUMBER: 60/134,556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Alitalo et al. TITLE OF INRECONSTRUCTIVE SURGERY TITLE DE INRESENTION: USE OF VEGF-C OR VEGF-D IN RECONSTRUCTIVE SURGERY FILE REFERENCE: 28967/339178 US/10/868,549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 46; DB 16; Length 109; 100.0%; Pred. No. 1.5; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 46; DB 9; Length 109; 100.0%; Pred. No. 1.5; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
US-10-868-549-10
'S-10-868-549-10
' Sequence 10, Application US/10868549
' Publication No. US20050043235A1
' GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
ACHEN, Marc
                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-219-345A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRGANISM: Homo sapiens US-10-779-731-1
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54 CNEESLIC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54 CNEESLIC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 7
US-10-779-731-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

```
GENERAL INFORMATION:
APPLICANT: Wise, Lyn M
APPLICANT: Mise, Lyn M
APPLICANT: Mise, Lyn M
APPLICANT: Bavory, Loreen J
APPLICANT: Savory, Loreen J
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT: Stephen B
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 46; DB 17; Length 134; Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 46; DB 15; Length 197; 100.0%; Pred. No. 2.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goli, Surya K.
Murry, Lynn E.
TITLE OF INVENTION: NOVEL ENDOTHELIAL GROWTH
FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
PRIOR APPLICATION NUMBER: US 60/478,114
PRIOR PELICATION NUMBER: US 60/478,114
PRIOR PILING DATE: 2003-06-12
PRIOR APPLICATION NUMBER: US 60/478,390
PRIOR PILING DATE: 2003-06-12
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin version 3.2
EAQ ID NO 10
LENGTH: 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 1, Application US/10044622; Publication No. US2002015553BA1 GENERAL INFORMATION: Bandman, Olga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 8, Application US/10352153
; Publication No. US20030211101A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.
Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
US-10-868-549-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Homo sapiens
US-10-352-153-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79 CNEESLIC 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70 CNEESLIC 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CNEESLIC 8
```

```
APPLICATION NUMBER: US/09/296,275
FILING DATE:
APPLICATION NUMBER: 08/915,795
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPh D.
REGISTATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
TELEFAX: (202) 628-8844
TELEFAX: N/A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/10161694
Publication No. US20030125537A1
GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (202) 628-8844
                                                                                                                                                                                   ORIGINAL SOURCE:
TISSUE TYPE: Human Breast
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                117 CNEESLIC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                             US-10-274-953-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-161-694-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%; Pred. No. 3.8;
Matches 8; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                  COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
CORRENT SYSTEM: DOS
SOFTWARE: FastSEQ for windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/044,622
FILING DATE: 09-Jan-2002
CLASSIFICATION NUMBER: 08/788,812
APPLICATION NUMBER: 08/788,812
APPLICATION NUMBER: 08/788,812
FILING DATE: CURROWN>
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRACION NUMBER: 36,749
REGISTRACION NUMBER: 36,749
REGISTRACION NUMBER: 36,749
REGISTRACION NUMBER: 36,749
REGISTRACION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: 36,749
RELEPHONE: 415-855-0555
TELEPHONE: 415-855-0555
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: United States of America
ZIP: 20005
ZOMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/274,953
FLING DATE: 22-oct-2002
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-10-044-622-1
                     STREET: 3174 Porter Drive
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 280 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                       ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIBRARY: LUNGASTO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLONE: 873352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              146 CNEESLIC 153
                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC 8
                                                       STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                  Andrew F. WILKS
Steven A. STACKER
Steven A. STACKER
ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPENDENCE ADDRESS:
ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
CITY: Washington
                                                       ö
Query Match
Best Local Similarity 100.0%; Score 46; DB 14; Length 325;
Best Local Similarity 100.0%; Pred. No. 4.4;
Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: DC
COUNTRY: United States of America
CIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/161,694
FILING DATE: 05-Jun-2002
CLASSIFICATION: <Unknown>
                          4.4;
hes 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/09/296,275
FILING DATE: «Unknown»
APPLICATION NUMBER: 08/915,795
FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D.

REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
```

Gaps

```
GENERAL INFORMATION:

APPLICANT: ACHEN Marc G.

APPLICANT: ACHEN Marc G.

APPLICANT: STACKER, Steven A.

TITLE OF INVENTION: WESCULAR ENDOTHELIAL GROWTH FACTOR D EXPRESSION, FOR SCREENING TITLE OF INVENTION: WASCULAR ENDOTHELIAL GROWTH FACTOR D EXPRESSION, FOR SCREENING TITLE OF INVENTION: POR NEOPLASTIC DISEASE OR METASTATIC RISK AND FOR MAINTAINING TITLE OF INVENTION: VASCULARIZATION OF TISSUE FILE REFERENCE: 1064/48666PC

CURRENT FILING DATE: 2001-09-20

PRIOR APPLICATION NUMBER: 09/796,714

PRIOR PLING DATE: 2000-09-20

PRIOR PLING DATE: 2000-09-20

PRIOR FILING DATE: 2000-09-20

NUMBER OF SEQ ID NOS: 4

SOFTWARE: PALENTIN VERSION 3.1

SEQ ID NO 2

LENGTH: 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 11, Application US/09219345A

Sequence 11, Application US/09219345A

Patent No. US20020127222A1

GENERAL INFORMATION:

APPLICANT:
ACHEN, MAIC

TITLE OF INVENTION: EXPRESSION VECTORS AND CELL LINES EXPRESSING VASCULAR

TITLE OF INVENTION: MELANOMAS

FILE REPERENCE: 1064/44386 MAIC ACHEN

CURRENT PELLICATION NUMBER: US/09/219,345A

CURRENT FILING DATE: 1998-12-23

PRIOR FILING DATE: 1998-12-24

PRIOR FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 11

SEQ ID NO 11

LENGTH: 354
                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                              Query Match 100.0%; Score 46; DB 16; Length 325; Best Local Similarity 100.0%; Pred. No. 4.4; Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 46; DB 9; Length 354; 100.0%; Pred. No. 4.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
              TISSUE TYPE: Human Breast;
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-705-476-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2, Application US/09956095
Patent No. US20020102260A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 100.
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                     117 CNEESLIC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       146 CNEESLIC 153
          ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                     1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
US-09-219-345A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-219-345A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-956-095-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-956-095-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                 Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Andrew F. WILKS
Steven A. STACKER
Steven A. STACKER
Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
RADBRESSEE: Sevenson, MCKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0%; Pred. No. 4.4; Length 325;
Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: DC
COUNTRY: United States of America
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC Compatible
COMPUTER: Batentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 12-Nov-2003
CLASSIFICATION DATA:
FRIOR PREDICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DATA:
FRIOR PAPLICATION DAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/10/161,694
FILING DATE: 05-Jun-2002
APPLICATION NUMBER: US/09/296,275
FILING DATE: <UNKNOWN>
APPLICATION NUMBER: 08/915,795
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INPORMATION:
NAME: EVANS, Joseph D.
REGISTRATION NUMBER: 26,269
TELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                             TISSUE TYPE: Human Breast
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
INFORMATION FOR ESQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 325 amino acide
TYPE: amino acide
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICLE: NO
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/10705476; Publication No. US2040175730A1; GENERAL INFORMATION: APPLICANT: Marc G. ACHEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 325 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (202) 628-8844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: N/A
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (202)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      117 CNEESLIC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-161-694-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
US-10-705-476-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

ö

Gaps

Query Match 100.0%; Score 46; DB 9; Length 354; Best Local Similarity 100.0%; Pred. No. 4.8; Matches 8; Conservative 0; Mismatches 0; Indels

ô

0; Gaps

1 CNEESLIC 8 |||||||| 146 CNEESLIC 153

g ò

Search completed: April 1, 2005, 10:36:33 Job time : 196.603 secs

Н

```
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramaon R.D., Millahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          043915 homo sapien 0892d7 gallus gall 03251 rattus norv 0312e4 rattus norv 07rpd9 plasmodium 064va6 bacteroides 08b571 pseudocowpo 081xn1 bacillus an 08750 oryctolagus 09750 oryctolagus 09750 oryctolagus 091182 capreolus c 09m181 capreolus c 09m2b1 ovis aries 0409m2 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus 68m3 orf virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                      (without alignments)
83.628 Million cell updates/sec
                                                                                                                                                                                                                                                             April 1, 2005, 03:33:32 ; Search time 48.9863 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEGD_HUMAN
QBQGD7
VEGD_RAT
QBQGD7
VEGD_RAT
Q912E4
QG7RPD9
QG4VA6
QBB571
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QB1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1
QG1XN1

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                            protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-761-636A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
                                                                                                                                                                            ı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB E
Maximum DB E
                                                                                                                                                                       OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 4 5 6 7 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
```

36         78.3         358         1         VEGD MOUSE         P97946 mus musculu           4         36         78.3         421         2         Q95FI0         Q95E10         drosophila           5         36         78.3         864         2         Q91EZ3         Q97Ef4         drosophila           6         36         78.3         1136         2         Q97F64         Q95F10         Q97F64         Q95F10         Q97F64         Q97F64         Q97F64         Q97F64         Q97F64         Q97764         Q97764         Q97764         Q97764         Q97764         Q97F65         Dasmodium         Q77F65         Dasmodium         Q77F65         Dasmodium         Q97764         Q97F11         Q97F11         Q97F11         Q97F11         Q97F11         Q97F11         Q97F11         Q97F11         Q97F11         Q73BF6         Dacillus central pacin         ENTS	J.T. 1 HUMAN VEGD_HUMAN STANDARD; PRT; 354 AA.	28-FEB-2003 (Rel. 41, Created) 28-FEB-2003 (Rel. 41, Last sequence update) 28-FEB-2004 (Rel. 44, Last annotation update) Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (RIGF).	Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCBI TaxID=9606;	SEQUENCE FROM N.A.  TISSUE=Lung;  TISSUE=10106/geno.1997.4774;  MEDLINE=97349118; PubMed=9205122; DOI=10.1006/geno.1997.4774;  MEDLINE=97349118; PubMed=9205122; DOI=10.1006/geno.1997.4774;  Mandada Y., Nezu JI., Shimane M., Hirata Y.;  "Molecular cloning of a novel vascular endothelial growth factor,  VEGF-D.";	SEQUENCE FROM N.A. TISSUE-bung; TISSUE-bung; TISSUE-Bal40.120; PubMed=9479493; DOI=10.1006/geno.1997.5079; Rocchigiani M., Leetingi M., Luddi A., Orlandini M., Franco B., Rossi E., Ballabio A., Zuffardi O., Oliviero S.; Human FICF: cloning, gene structure, and mapping to chromosome Xp22.1 between the FIGA and the GRPR genes.";	SEQUENCE FROM N.A.  SEQUENCE FROM N.A.  MEDLINE=99118549; PubMed=9435229; DOI=10.1073/pnas.95.2.548;  Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vitali A., Wilks A.F.,  Alitalo K., Stacker S.A.;  "Vascular endothelial growth factor D (VEGF-D) is a ligand for the tyrosine kinases VEGF receptor 2 (Flk1) and VEGF receptor 3 (Flt4).";  Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).	141 SEQUENCE FROM N.A. TISSUE=Lung; MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L., Shenmen C.M., Schuler G.D., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altachul S.F., Zeeberg B., Buercw K.H., Schaefer C.F., Bhat N.K.,	
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		13 G	G D D D D D D D D D D D D D D D D D D D					RA RA RA RA RA RA RA RA RA RA RA RA RA R

```
1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                   CHAIN
PROPEP
DOMAIN
                                                                                                                                                                                                                                                                                              REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gallus.
                                                                                                                      PROPEP
                                                                                                                                                                                                                                                                REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q8QGD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SO SELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FELLA A FEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. 'Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Colon, and pancreas.

PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-3 and VEGFR-2 VEGF-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions.

SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
                                                                                                                                                                                                                                                                                  PROCESSING, AND SEQUENCE OF 89-94; 100-105 AND 206-213.
MEDLINE-20011413; PubMed=10542248; DOI=10.1074/jbc.274.45.32127;
Stacker S.A., Stenvers K.L., Caesar C., Vitali A., Domagala T.,
Nice E.C., Roufail S., Simpson R.J., Moritz R., Karpanen T.,
                                                                                                                                                                                                                                                                                                                                                                                                     Alitalo K., Achen M.G., "Biosynthesis of vascular endothelial growth factor-D involves
                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL, D89630; BAA24264.1; -...
EMBL, Y12864; CAA73370.1; -...
EMBL, Y12864; CAA73371.1; JOINED.
EMBL, Y12865; CAA73371.1; JOINED.
EMBL, Y12865; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, X12869; CAA73371.1; JOINED.
EMBL, AJOO0185; CAA73371.1; JOINED.
EMBL, BCC27948; AAH27948.1; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                     and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGNC:3708; FIGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genew; HGNC:370E
H-InvDB; HIX0016
MIM; 300091; -.
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ogatus gatus (vintemi).
Ebkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interchain (By similarity).
Interchain (By similarity).
N-linked (GlCNAc. ..) (Potential).
N-linked (GlCNAc. ..) (Potential).
N-linked (GlCNAc. ..) (Potential).
                                                   ||month|
| Potential.
| Or 99 (in a minor form).
| Vascular endothelial growth factor
                                                                                                                        4 X 16 AA repeats of C-X(10)-C-X-C-X(1,3)-C.
                       Glycoprotein; Growth factor; Mitogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 46; DB 1; Length 354; 100.0%; Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.0%; Score 40; DB 2; Length 252;
87.5%; Pred. No. 13;
iive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                          2048D769D735173E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Growth factor; Mitogen.
SEQUENCE 252 AA; 28768 NW; 643475DAB2E72F27 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
Angiogenesis; Cleavage on pair of basic residues; Direct protein sequencing; Glycoprotein; Growth f. Multigene family; Repeat; Signal. SiGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GO; GO:0016020; C:membrane; IEA.
GO; GO:0008083; P:growth factor activity; IEA.
GO; GO:0008283; P:cell proliferation; IEA.
GO; GO:0000074; P:ceglation of cell cycle; IEA.
InterPro; IPR000072; PD_growth_factor.
Propon; PD00141; PDGF; 1.
Probon; PD00141; PDGF; 1.
                                                                                                                                                                (approximate)
                                                                                                                                                                                                                                 By similarity.
By similarity.
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vascular endothelial growth factor D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-2002 (TEMBLrel. 21, Created)
01-JUN-2002 (TEMBLrel. 21, Last seq
01-JUN-2003 (TEMBLrel. 24, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                            40444 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 87.0
Best Local Similarity 87.5
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                          88
205
354
318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     146 CNEESLIC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                          354 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9031;
                                                                          22
89
206
222
                                                                                                                                                              222
222
227
301
111
142
1146
1146
1155
1185
287
```

ö

Gaps

ö

```
EMBL; AF014827; AAB66557.1; -.
HSSP; P01127; 1PDG.
RGD; 620695; Figf.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
PROPEP
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
REPEAT
REPEAT
                                                                                                   VEGD_RAT
                                                                                RESULT
8
                                                                                                                                                          THE STATES AND SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON SEASON S
```

```
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM SEQUENCE FROM N.A.

MARCHISPINES-21541129; bubmed=11683876;

MAITEDLINES-21541129; bubmed=11683876;

MAITEDLINES-21541129; bubmed=11683876;

MAITEDLINES-21541129; bubmed=11683876;

MAITEDLINES-21541129; bubmed=11683876;

MAITEDLINES-21541129; bubmed=11683876;

MAITEDLINES-21541129; belongs which preferentially inhibit VEGF-C-INGUENCE Activation of VEGFR-3 rather than VEGFR-2.";

MAITEDLINES-21541129; belongs to the PDGF/VEGF growth factor family.

MAITEDLINES-21541129; belongs to the PDGF/VEGF growth factor family.

MASP; PO1127; 1PDG.

GO: GO:0016020; C:membrane; IEA.

GO: GO:0016020; C:membrane; IEA.

GO: GO:0000074; P:regulation of cell cycle; IEA.

MASP; PO1014; PDGF; 1.

MARRY; SMORTA; PDGF; 1.

MARRY; SMORTA; PDGF; 1.

MARRY; PSGORTA; PDGF; 1.

MARRY; PROSITE; PSGOR24; PDGF=1; 1.

MARRY; PROSITE; PSGOR24; PDGF=1; 1.

MARRY; PROSITE; PSGOR24; PDGF=1; 1.

MARRY; PAGORTE; PSGOR24; PDGF=1; 1.

MARRY; PAGORTE; PSGOR24; PDGF=1; 1.

MARRY; MARRY; PDGF=1; 1.

MARRY; MARRY; PDGF=1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
150 Interchain (By similarity).
160 N-linked (GlcNAc. .) (Potential).
190 N-linked (GlcNAc. .) (Potential).
292 N-linked (GlcNAc. .) (Potential).
37112 MW; 1261AFA373596C00 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Alveolata, Apicomplexa, Haemosporida, Plasmodium.
NCBI_TaxID=73239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87.0%; Score 40; DB 2; Length 326; 75.0%; Pred. No. 16; ive 2; Mismatches 0; Indels
                                                                                                                                              DB 1; Length 326;
                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Growth factor; Mitogen.
SEQUENCE 326 AA; 37106 MW; D7CAEBA6C9FABB7D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2004 (TrEMBLrel. 26, Created)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strong similarity to unknown protein-related.
Name=PY01520;
Plasmodium yoelii yoelii.
                                                                                                                                                Score 40; DB 1
Pred. No. 16;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                  326 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 1768 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                5
                                                                                                                                                Query Match
Best Local Similarity 75.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2001 (TrEMBLrel. 19, 01-DEC-2001 (TrEMBLrel. 19, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                          151 CNEESVMC 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |||||::|
151 CNEESVMC 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
    150
160
190
292
326 AA;
                                                                                                                                                                                                                                               œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CNEESLIC 8
                                                                                                                                                                                                                                             1 CNEESLIC
                                               CARBOHYD
CARBOHYD
SEQUENCE
    DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q7RPD9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q7RPD9
                                                                                                                                                                                                                                                                                                                                                                                                               Q91ZE4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best
                                                                                                                                                                                                                                                                                                                                                                                         Q91ZE4
ID Q9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q7RPD9
                                                                                                                                                                                                                                                                                                                                                                                                                                        FT FT SO
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윰
                                                                                                                                                                                                                                                                                                                                                                                                                              RA SEQUENCE FROM N.A.

RA SEQUENCE FROM N.A.

RA SUBMITE-STAGE-DAWLEY;

RA SUBMITE-STAGE Y., Nezu J., Shimane M.;

SEQUENCE FROM N.A.

RA Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

- I- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood wssels. May function in the formation of the venous and lymphatic vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-3 (Flt4) receptor (By similarity).

--- SUBUNIT: Homodimer; non-covalent and antiparallel (By similarity).

--- SUBCLLUIAR LOCATION: Secreted (By similarity).

--- SUBCLLUIAR LOCATION: Secreted forms with increased activity toward veriety of processed secreted forms with increased activity toward veriety of processed secreted forms with increased activity toward veriety of processed mostly of two VEGF homology domains (VHDs) cound by disulfide bonds before secretion. The fully processed veriety bound by non-covalent interactions (By similarity).

--- SIMILARITY: Belongs to the PDGF/VGGF growth factor family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                05-JUL-2004 (Rel. 41, Last sequence update)
Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF)
Name=Figf; Synonyms=Vegfd;
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vascular endothelial growth factor D. Potential. 4 X 16 AA repeats of C-X(10)-C-X-C-X(1,3)-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS05278; PDGF_2; 1.
Angiogenesis; Cleavage on pair of basic residues; Glycoprotein; Growth factor; Mitogen; Multigene family; Repeat; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 (incomplete).
By similarity.
By similarity.
By similarity.
Interchain (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (approximate)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Potential.
Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro, IPR000072; PD growth factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PD growth factor; 1.
SMART; SM00141; PDGF; 1.
                        146 CNEESLSC 153
```

ö

Gaps

; 0

DISULFID DISULFID DISULFID

```
STRAIN=Ames / isolate Porton;

MEDLINE=260844; PubMed=12721629; DOI=10.1038/nature01586;

Read T.D., Peterson S.N., Tourasse N.J., Baillie L.W., Paulsen I.T.,

Read T.D., Peterson S.N., Tourasse N.J., Eisen J.A., Gill S.R.,

Nelson K.E., Tettelin H., Fouts D.E., Eisen J.A., Gill S.R.,

A Holtzapple E.K., Okstad O.A., Helgason E., Rilstone J., Wu M.,

Kolonay U.F., Beanan M.J., Dodson R.J., Brinkac L.M., Gwinn M.L.,

DeBoy R.T., Madpu R., Daudherty S.C., Durkin A.S., Haft D.H.,

Nelson W.C., Peterson J.D., Pop M., Khouri H.M., Radune D.,

Benton J.L., Mahamoud Y., Jiang L., Hance I.R., Neidman J.F.,

Hazen A., Cline R.T., Redmond C., Thwaite J.E., White O.,

A Salzberg S.L., Thomason B., Frieder A.M., Koehler T.M.,

Hanna P.C., Kolstoe A.-B., Fraser C.M.;

"The genome sequence of Bacillus anthracis Ames and comparison to
                                                                                                                                                                                                                                                                                                                    MEDLINE-22462882; PubMed-12573575; DOI=10.1006/viro.2002.1750;
Ueda N., Wise L.M., Stacker S.A., Fleming S.B., Mercer A.A.;
"Pseudocowpox virus encodes a homolog of vascular endothelial growth
                                                                                                                                 Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Virology 305:298-309(2003).
--- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
--- SEMBL; AFS-62709; AAO16216.1; --
HSSP; Q9UH58; 1FLT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80.4%; Score 37; DB 2; Length 152; 75.0%; Pred. No. 29; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0016020; C:membrane; IEA.
GO; GO:0016020; F:growth factor activity; IEA.
GO; GO:0008083; F:growth factor activity; IEA.
GO; GO:0008151; P:cell growth and/or maintenance; IEA.
InterPro; IPR000400; GF_Cysknot.
InterPro; IPR00072; PD_growth_factor.
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      152 AA; 16202 MW; F4B3956D60B37A3D CRC64;
      01-OCT-2003 (TrEMBLrel. 25, Last annotation update) Vascular endothelial growth factor-like protein. Name=VEGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 28, Last annotation update)
15-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein.
Ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00438; GFCYSKNOT.
ProDom; PD001629; PD growth factor; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        closely related bacteria.";
Nature 423:81-86(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=Ames / isolate 0581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 75.0 hes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89 CNDESQIC 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CNEESLIC 8
                                                                                                    Pseudocowpox virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacillus anthracis.
                                                                                                                                                               Parapoxvirus.
NCBI_TaxID=129726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=1392;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q81XN1
         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DDT TO DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN TCH46;

Kuwahara T., Yamashita A., Hirakawa H., Nakayama H., Toh H., Okada N.,

Kuhara S., Hatrori M., Hayashi T., Ohnishi Y.;

"Genomic analysis of Bacteroides fragilis reveals extensive DNA
inversions regulating cell surface adaptation.";

Proc. Natl. Acad. Sci. U.S.A. 0:0-0(2004).

EMBL, AP006841; BAD48572.1; -.

SRQUENCE 267 AA; 30102 MW; 30267558B52E078A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                  "Genome sequence and comparative analysis of the model rodent malaria
                                                       Carlton J.M., Angiuoli S.V., Suh B.B., Kooij T.W., Pertea M.,
Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
Shallom S.J., van Aken S.E., Riedmuller S.B., Feddblyum T.V.,
Cho J.K., Quackenbush J., Sedegah M., Shoaibi A., Cummings L.M.,
Florens L., Yates F.R. III, Raine J.D., Sinden R.E., Harris M.A.,
Cunningham D.A., Preiser P.R., Bergman L.W., Vaidya A.B.,
Van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R.,
Salzberg S.L., Venter J.C., Fraser C.M., Hoffman S.L., Gardner M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
Bacteroidaceae; Bacteroides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87.0%; Score 40; DB 2; Length 1768; 75.0%; Pred. No. 88; 0; Indels iive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84.8%; Score 39; DB 2; Length 267; 62.5%; Pred. No. 21; ative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1768 AA; 205674 MW; 127CB4EA11658448 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Appothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TrEMBLrel. 23, Created)
(TrEMBLrel. 23, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     152 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                               parasite Plasmodium yoelii yoelii.";
Nature 419:512-519(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           preliminary data.
EMBL; AABLO10000404; EAA20861.1; -.
InterPro; IPR008532; DUF814.
Pfam; PF05670; DUF814; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CNEENVIC 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNEEKIVC 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteroides fragilis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CNEESLIC 8
FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORFNames=BF1825;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=817;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8B571;
01-MAR-2003
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                     Carucci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q64VA6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8B571
```

8 원 Matches

O64VA6

10 Q66VA6

O71 Q66

O72 Q73

O73 Q74

O74 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O75 Q74

O7

RESULT 7 Q8B571

6

Gaps

```
WEDLINE=98191144; PubMed=9530113;
Skorjanc D., Jaschinski F., Heine G., Pette D.;
Skorjanc D., Jaschinski F., Heine G., Pette D.;
Skorjanc D., Jaschinski F., Heine G., Pette D.;
T. "Sequential increases in capillarization and mitochondrial enzymes in with the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant o
                                                                                                                                                                                  Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
Inoue K., Kawabe Y., Kodama T.;
Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases.
-!- SINTIARITY: Belongs to the PDGF/VEGF growth factor family.
EMBL; AB020215; BRA36949:1; --
HSSP; Q9UH58; 1BJ1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78.3%; Score 36; DB 2; Length 68; 75.0%; Pred. No. 20; 1; Indels tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68 AA; 7819 MW; 687638661E98DEE0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Vascular endothelial growth factor (Fragment).
                                                             OJ.NOV.;
01-NNY-1999 (TrEMBLrel. 10, Created)
01-NNY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Vascular endothelial growth factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN-White New Zealand; TISSUE-Skeletal muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0016020; C:membrane; IEA.
GO; GO:0008083; F:growth factor activity; IEA.
GO; GO:0008283; P:cell proliferation; IEA.
GO; GO:000074; P:cell proliferation; IEA.
InterPro; IPR000072; PD_growth_factor.
Pfam; PF00341; PDGF; 1.
Probon; PD001629; PD_growth_factor.
                             68 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE, PS00249; PDGF 1; 1.
PROSITE; PS50278; PDGF 2; 1.
Growth factor; Mitogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 CNDESLEC 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
les 6, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CNEESLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            018843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 11
018843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
    097500
                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
Ravel J., Rasko D.A., Shumway M.F., Jiang L., Cer R.Z., Federova N.B., Wilson M., Stanley S., Decker S., Read T.D., Salzberg S.L., Fraser C.M.;
                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80.4%; Score 37; DB 2; Length 200; 62.5%; Pred. No. 38; 1; Indels rative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     78.3%; Score 36; DB 2; Length 65; 75.0%; Pred. No. 19; 1; Indels Live 1; Mismatches 1; Indels
                                                                       "Bacillus anthracis comparative genomics.";
Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                         TIGR; BA5202; -
TIGR; GBA5202; -
COMDLETE PROCESSED HYPOCHETICAL PROCESTED TO AS SEQUENCE 200 As; 23905 MW; 70E8DD90ESDBA7A0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65 AA; 7562 MW; BA3E5384364B05E3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Vascular endothelial growth factor 121 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE, PS50278; PDGF_2; 1. Growth factor; Mitogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
TISSUE=Corpus luteum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||:|:||
52 CNDEKMIC 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ||:||| |
CNDESLEC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Capra hircus (Goat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Caprinae, Capra.
                                                                                                                                                                    STRAIN-Sterne;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON TER
SEQUENCE
```

Query Match

OBMINO, **ONIM8Ö** 

RESULT 9

g ઠ

ö

Gaps

ö

Query Match

Best Loc Matches

109 AA.

PRT;

us-09-761-636a-6.open.rup

```
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9MZB1
Q9MZB1;
              Q8MIN1
Q8MIN1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9MZB1
                  DDT TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN DD TAN D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=20532861; PubMed=11078967; DOI=10.1016/S0378-4320(00)00191-3; Wagener A., Blottner S., Goritz F., Fickel J.; "Detection of growth factors in the testis of roe deer (Capreolus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Capreolus capreolus (Roe deer).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Cervidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anim. Reprod. Sci. 64:65-75(2000).
-!- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
HESBL; 48152593; AFF3232.1; -.
HESSP; Q9UH58; 1FLT.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0008813; F:growth factor activity; IEA.
GO; GO:0008283; P:cell proliferation; IEA.
GO; GO:00008283; P:cell proliferation; IEA.
GO; GO:0000074; P:regulation of cell cycle; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Vascular endothelial growth factor isoform 121 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                Score 36; DB 2; Length 75;
Pred. No. 22; 1
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.3%; Score 36; DB 2; Length 78; 75.0%; Pred. No. 23; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                              DDCE2C5B29E69359 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7EE20DDFFC17847C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78 AA.
Pfam; PF00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT.
ProDom; PD001629; PD growth_factor; 1.
SMART; SM0141; PDGF; 1.
PROSITE; PS00249; PDGF 1; 1.
PROSITE; PS50278; PDGF 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probon; PD001629; PD growth factor; 1. SMART; SM00141; PDGF; 1. PROSTIE; PS05249; PDGF 1; 1. PROSTIE; PS550278; PDGF 2; 1. Growth factor; Mitogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Interpro; IPR002400; GF_cysknot.
Interpro; IPR000072; PD_growth_factor.
Pffam: Pf00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT.
                                                                                                                                                                                                                                                                                                                                                                                                    78.3%;
                                                                                                                                                                                                                                                                                                                   SEQUENCE 75 AA; 8720 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78 AA; 9131 MW;
                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 75.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Odocoileinae, Capreolus.
NCBI_TaxID=9858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29 CNDESLEC 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||:||| |
25 CNDESLEC 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     capreolus).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                         NON TER
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9N1S2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
1090152
AC 090153
AC 09015
DE 01-0C
DT 01-0C
DT 01-0C
DT 01-0C
DT 01-0C
DT 01-0C
DT 01-0C
DE 08020
OC Capre
OC Capre
OC Mamma
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC Odoco
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
OC ODOCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
       DR ROBERT SOL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

RESULT 13 QBMIN1

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ovis aries (Sheep).

Bukaryota, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

Caprinae; Ovis.
                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
Caprinae; Capra.
                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUBE-Corpus luteum;
Kawate N., Tsuji M., Tamada H., Inaba T., Sawada T.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
-! SINILARLIY: Belongs to the PDGF/VEGF growth factor family.
EMBL, AY114352; AAM76673.1; --
HSSP; Q9UHS8; IFLT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.3%; Score 36; DB 2; Length 109; 75.0%; Pred. No. 33; tive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00141; PDGF; 1. PROSITE; PS50278; PDGF 2; 1. Growth factor; Mitogen. 1 1 1 SEQUENCE 109 AA; 12656 WW; 912657251A37E023 CRC64;
01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
Vascular endothelila growth factor 165 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2000 (TrEMBLrel. 15, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update) Vascular endothelial growth factor (Fragment).
                                                                                                                                                                                                                                                                                                              GO; GO:0016020; C:membrane; IEA.
GO; GO:0008083; F:growth factor activity; IEA.
GO; GO:0008283; P:cell proliferation; IEA.
GO; GO:000074; P:regulation of cell cycle; IEA.
InterPro; IPR00072; PD_growth_factor.
Probom; PD001629; PD_growth_factor; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GO; GO:0016020; C:membrane; IEA.
GO; GO:0008083; F:growth factor activity; IEA.
GO; GO:0008283; P:cell proliferation; IEA.
GO; GO:000074; P:regulation of cell cycle; IEA.
InterPro; IPR002400; GF cysknot.
InterPro; IPR00240; GF cysknot.
FinerPro; IPR000072; PD_growth_factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-OCT-2000 (TrEMBLrel. 15, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 75.0°,
Best coservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                      Capra hircus (Goat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 CNDESLEC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                               NCBI_TaxID=9925;
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  Oryctolagus cuniculus (Rabbit).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
Clausen I., Kietz S., Fischer B.;
Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARLIY: Belongs to the PDGF/VEGF growth factor family.
EMBL; AY196796; AAO42518.1;
HSSP; Q9UHS8; IFLT.
                                                                                                                                        Query Match 78.3%; Score 36; DB 2; Length 118; Best Local Similarity 75.0%; Pred. No. 35; Matches 6; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78.3%; Score 36; DB 2; Length 120; 75.0%; Pred. No. 36; 1; Indels ative 1; Mismatches 1; Indels
PRINTS; PR00438; GFCYSKNOT.
Prodom; PD001629; PD_growth_factor; 1.
SMART; SM00141; PDGF_1: 1.
PROSITE; PS50278; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Growth factor; Mitogen. 1.
NON_TER 1 1.
SEQÜENCE 118 AA; 13931 MW; 757DC53AA56378A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120 AA; 14032 MW; E563C54980DCE1E8 CRC64;
                                                                                                                                                                                                                                                                                                                                               01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-CCT-2003 (TrEMBLrel. 25, Last annotation update)
Vascular endothelial growth factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO, GO:0016620; C:membrane; IEA.
GO; GO:0016620; C:membrane; IEA.
GO; GO:001683; F:growth factor activity; IEA.
GO; GO:0000031; F:growth factor activity; IEA.
GO; GO:0000074; P:regllation of cell cycle; IEA.
InterPro; IPR002400; GF_cysknot.
InterPro; IPR000072; PD_growth_factor.
PROMINTS; PR0041; PDGF; 1.
PROSITE; PR0041; PDGF; 1.
PROSITE; PS01278; PDGF; 1.
PROSITE; PS01278; PDGF; 1.
Growth factor; Mitogen.
INON_TER 120 120
NON_TER 120 120
SEQÜENCE 120 AA; 14032 MW; E563C54980DCEIE8 CRC
                                                                                                                                                                                                                                                                                                                  120 AA.
                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 78.3
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                        ||:||| |
58 CNDESLEC 65
                                                                                                                                                                                                        1 CNEESLIC 8
                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
```

Search completed: April 1, 2005, 09:25:57 Job time : 50.9863 secs

74 CNDESLEC 81

THIS PAGE BLANK (USPTO)

Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli

Appli Appli

Seguence:

Title:

Run on:

Searched:

Database

Result

Ņ.

```
RESULT 2
US-09-469-185-1
Sequence 1, Application US/09469185
Sequence 1, Application US/09469185
Batent No. 6531185
GENERAL INFORMATION:
APPLICANT: ACHEN, MARC G.
TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF
FILE REPRENCE: ACHEN UNMER: US/09/469,185
CURRENT FILING DATE: 1999-12-21
EARLIER FILING DATE: 1999-12-21
EARLIER FILING DATE: 1999-12-21
EARLIER FILING DATE: 1999-05-17
NUMBER: 60/134,556
SATULER FILING DATE: 1999-05-17
NUMBER: PARLICATION NUMBER: 60/134,556
SATULER FILING DATE: 1999-05-17
NUMBER: PARLICATION NUMBER: 60/134,556
SATULER FILING DATE: 1999-05-17
SOFTWARE: PARLICATION VOWER: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: STACKER, Steve A.
APPLICANT: STACKER, Steve A.
TITLE OF INVENTION: ANTIDDIES TO TRUNCATED VEGF-D AND USES THEREOF FILE REFERENCE: ACHEN et al-1064-44660
CURRENT APPLICATION NUMBER: US/09/469,186
CURRENT FILING DATE: 1999-12-21
EARLIER APPLICATION NUMBER: 60/113,254
EARLIER APPLICATION NUMBER: 60/113,254
EARLIER FILING DATE: 1999-05-17
NUMBER OF SEQ ID NOS: 1
SOFTWARE: Patentin Ver. 2.0
                                                                       Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq
                 Sequence
Sequence
Sequence
 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75.0%; Score 54; DB 3; Length 109; 100.0%; Pred. No. 0.065; ive 0; Mismatches 0; Indels
                             US-08-875-811-1

US-09-394-268-1

US-09-194-268-2

US-09-071-672-1

US-09-687-748-1

US-08-687-748-2

US-08-687-748-2

US-08-687-748-2

US-08-687-748-2

US-08-687-81-1

US-08-986-11-24

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26

US-08-875-811-26
                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 1, Application US/09469186
; Patent No. 6383484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 11; Conserv
RESULT 1
US-09-469-186-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-186-1
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 1
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Appli
Sequence 1, Appli
Sequence 8, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 6, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Appli
Sequence 11286, A
Sequence 6, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 2, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 109, App
Sequence 22, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                               April 1, 2005, 07:04:23 ; Search time 28.8493 Seconds (without alignments) 33.638 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9, Al
Sequence 8, Al
Sequence 2, Al
Sequence 8, Al
Sequence 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2,
Sequence 3,
Sequence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1,
Sequence 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1: /cgn2_6/ptodata/1/iaa/5A COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/PCTUS COMB.pep:*
                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-469-186-1

US-09-469-185-1

US-10-100-037-1

US-09-431-888-8

US-08-915-795-3

US-08-915-795-3

US-09-296-275-3

US-09-136-275-5

US-09-136-275-5

US-09-16-11286

US-09-16-11286

US-09-16-11286

US-09-16-11286

US-09-16-11286

US-09-16-11286

US-09-847-524-4

US-09-847-524-4

US-09-847-524-4

US-09-847-524-4

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2

US-09-184-524-2
                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS-09-986-119-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-07-921-619-1
US-08-467-955-1
                                                                                                                                                                                                                                                                                                                                               513545 seqs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Listing first 45 summaries
                                                                                             protein search, using sw model
                                                                                                                                                                                                                                                                                                         Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Issued Patents AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                               1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                           US-09-761-636A-5
72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM protein
```

```
; ORGANISM: Homo sapiens
US-09-431-888-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-296-275-3
                                                                                                                                                                                                                                                                                                                                            US-08-915-795-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: W
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Wise, Lyn M
APPLICANT: Wise, Lyn M
APPLICANT: Marcer, Andrew A
APPLICANT: Barcer, Andrew A
APPLICANT: Stephen B
APPLICANT: Fleming, Stephen B
APPLICANT: Fleming, Stephen B
APPLICANT: Fleming, Stephen
ITILE OF INVENTION: VIRUS NZ2 BINDS AND ACTIVATES MAMMALIAN VEGF
ITILE OF INVENTION: VIRUS NZ2 BINDS AND ACTIVATES MAMMALIAN VEGF
ITILE OF INVENTION: VIRUS NZ2 BINDS AND ACTIVATES MAMMALIAN VEGF
ITILE OF INVENTION: VIRUS NZ2 BINDS AND ACTIVATES MAMMALIAN VEGF
ITILE OF INVENTION: VIRUS NZ2 BINDS AND ACTIVATES MAMMALIAN VEGF
ITILE OF INVENTION: VIRUSER: 09/431,888A
CURRENT APPLICATION NUMBER: 60/106,689
EARLIER FILING DATE: 1998-11-02
BARLIER FILING DATE: 1998-11-03
NUMBER OF SEQ ID NOS: 11
NUMBER OF SEQ ID NOS: 11
                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GUREACH INFORMENTALON:

APPLICANT: STACKER, Steve A.

APPLICANT: STACKER, Steve A.

TITLE OF INVENTION: ANTIBODIES TO TRUNCATED VEGF-D AND USES THEREOF

FILE REFERENCE: ACHEN et al.1064-44660

CURRENT APPLICATION NUMBER: US/10/100,037

CURRENT FILING DATE: 2002-03-19

PRIOR APPLICATION NUMBER: 09/469,186

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-12-21

PRIOR FILING DATE: 1999-05-17

NUMBER OF SEQ ID NOS: 1

SOFWWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 109

"LENGTH: 109
                                                                                                                                                                            Gaps
                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 75.0%; Score 54; DB 4; Length 109; Best Local Similarity 100.0%; Pred. No. 0.065; Matches 11; Conservative 0; Mismatches 0; Indels
                                                                                                                     ch 75.0%; Score 54; DB 4; Length 109; l Similarity 100.0%; Pred. No. 0.065; 11; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8, Application US/09431888A Patent No. 6541008
                                                                                                                                                                                                                                                                                                                                                              US-10-100-037-1
; Sequence 1, Application US/10100037
; Patent No. 6730489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 8
LENGTH: 197
                                                                                                                                                                                                                                                     29 ASELGKSTNTF 39
                                                                                                                                                                                                                       2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29 ASELGKSTNTF 39
; LENGTH: 109
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-469-185-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-10-100-037-1
                                                                                                                     Query Match
Best Local Similarity
Matches 11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-431-888-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                           ö
Query Match 75.0%; Score 54; DB 4; Length 197; Best Local Similarity 100.0%; Pred. No. 0.12; Matches 11; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Evenson, McKeown, Edwards & Lenahan P.L.L.C. STREET: 1200 G Street, NW, Suite 700 CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75.0%; Score 54; DB 3; Length 325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CARRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.0%; Pred. No. 0.2; Matches 11; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: EVANS, Joseph D.
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                         Sequence 3, Application US/08915795
Patent No. 6335713
GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
APPLICANT: Steven A. STACKER
APPLICANT: Karl ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: United States of America ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 3, Application US/09296275
; Patent No. 6689580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGINAL SOURCE:
TISSUE TYPE: Human Breast
US-08-915-795-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (202, 502)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   325 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (202) 628-884
TELEX: N/A
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS LENGTH: 325 amino aci
                                                                                     2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 536
                                                                                                                                 45 ASELGKSTNTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
```

```
75.0%; Score 54; DB 3; Length 354; 100.0%; Pred. No. 0.22; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Evenson, McKeown, Edwards & Lenahan P.L.L.C.
1200 G Street, NW, Suite 700
                                                                  CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INPORMATION:
NAME: EVANS, JOSEPH D.
REGISTRATION NUMBER: 1064/42983
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRAME (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
ODERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/296,275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1200 G Street, NW, Suite TITY: Washington STATE: DC COUNTRY: United States of America ZIP: 20005
                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/915,795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 5, Application US/09296275; Patent No. 6689580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
ITILE OF INVENTION: GROWTH FAC:
UNMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: EVENBON, MCKEOWN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: EVANS, JOSEPh D. REGISTRATION NUMBER: 26,269 REFERENCE/DOCKET NUMBER: 100 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                    TELEFAX: (20c,
TELEFAX: N/A
, INFORMATION FOR SEQ ID NO: 5:
, SEQUENCE CHARACTERISTICS:
, LENGTH: 354 amino acids
TUDENGTH: 354 amino acids
TUDENGTH: 354 amino acids
TUDENGTH: 354 amino acids
TUDENGTH: 354 amino acids
TUDENGTH: 354 amino acids
TUDENGTH: 354 amino acids
TUDENGTH: 354 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: ATTORNEY/AGENT INFORMATION:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGINAL SOURCE:
; TISSUE TYPE: Human Lung
US-08-915-795-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 ASELGKSTNTF 131
                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
US-09-296-275-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: MARC G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Evenson, MCKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
                                                                                                                                                 Evenson, McKeown, Edwards & Lenahan P.L.L.C.
1200 G Street, NW, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4; Length 325;
0.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                        75.0%; Score 54; DB 100.0%; Pred. No. 0.2 tive 0; Mismatches
                 APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 5, Application US/08915795
Patent No. 6235713
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INPORMATION NOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 3.25 amino acids TYPE: amino acid sTRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGINAL SOURCE:
, TISSUE TYPE: Human Breast
US-09-296-275-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92 ASELGKSTNTF 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 ASELGKSTNTF 12
                                                                                                                                                                                      Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 11; Conserv
 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: DC
COUNTRY: Un
ZIP: 20005
                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-915-795-5
                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

ô

Gaps

. 0

```
APPLICATION NUMBER: GB 9828377.3
                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
CORGANISM: Homo sapiens
US-09-468-647A-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
CRGANISM: Homo sapiens
US-09-169-079-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-09-169-079-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-09-214-982-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
US-09-375-248-6
| Sequence 6, Application US/09375248
| Sequence 6, Application US/09375248
| Patent No. 6764820
| GENERAL INFORMATION:
| APPLICANT: Ferrel1, Robert E. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: Fairegold, David N. APPLICANT: FAIRENTION: SCREENING AND THERAPY FOR LYMPHATIC DISORDERS INVOLVING FILE REFERENCE: 28967/35255A | CURRENT PAPLICATION NUMBER: US/09/375,248 | CURRENT FILING DATE: 1999-08-16 | EARLIER APPLICATION NUMBER: PCT/US99/06133 | EARLIER PLOSTURE FILING DATE: 1999-03-26 | SOFTWARE: Patentin Ver. 2.0 | SEQ ID NOS: 28 | SOFTWARE: Patentin Ver. 2.0 | SEQ ID NO SECONDERS | SOFTWARE: Patentin Ver. 2.0 | SEQ ID NO SECONDERS | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENTIAL SEQ ID NOS: 28 | SOFTWARE: PATENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 54; DB 4; Length 354;
Pred. No. 0.22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75.0%; Score 54; DB 4; Length 354; 100.0%; Pred. No. 0.22; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 109, Application US/09468647A

Sequence 109, Application US/09468647A

Patent No. 6783953

GENERAL INFORMATION:

APPLICANT: Gordon, Robert D

APPLICANT: You, Jeffery R

APPLICANT: You, Josefery N

APPLICANT: Distans, Josefery N

APPLICANT: Distans, Josefery N

APPLICANT: Dharari, Sridevi N

TILE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-X

FILE REFERENCE: B0192.70011US00

CURRENT APPLICANT: NUMBER: US/09/468,647A

CURRENT FILING DATE: 1999-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75.0%; Scc...
100.0%; Pred. No. v.
                                        TELEX: N/A
TELEX: N/A
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 354 amino acids
TYPE: amino acids
   (202) 628-8800
(202) 628-8844
                                                                                                                                                                                                                                                    TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: Human Lung
US-09-296-275-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.
....hes 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 ASELGKSTNTF 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 ASELGKSTNTF 131
                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 11; Conserv
TELEPHONE:
TELEFAX: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-468-647A-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-375-248-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
GENERAL INFORMATION:
APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Kari
APPLICANT: Alitalo, Reija
APPLICANT: Valtola, Reija
APPLICANT: Valtola, Reija
APPLICANT: Usesila, Lotta
APPLICANT: Usesila, Lotta
APPLICANT: Usesila, Lotta
TILE OF INVENTION: Elt4 (VEGFR-3) as a Target for Tumor Imaging and Anti-Tumor Therap
FILE REFERENCE: 28113/34891
CURRENT APPLICATION NUMBER: US/09/169,079
CURRENT APPLICATION NUMBER: U8/901,710
BARLIER FILING DATE: 1994-01-14
BARLIER APPLICATION NUMBER: 08/340,011
BARLIER FILING DATE: 1994-07-09
BARLIER FILING DATE: 1994-07-09
BARLIER FILING DATE: 1994-07-09
BARLIER FILING DATE: 1992-10-09
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 22
LENGTH: 354
                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                    75.0%; Score 54; DB 4; Length 354; 100.0%; Pred. No. 0.22; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75.0%; Score 54; DB 4; Length 354; 100.0%; Pred. No. 0.22; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1. Application US/09214982; Patent No. 6828426; GENERAL INFORMATION:
; APPLICANT: Hirata, Yuichi; APPLICANT: Hirata, Yuichi; TITLE OF INVENTION: No. 6828426e1 VEGF-like Factor; FILE REFERENCE: 50026/01401; CIRRENT PAPLICATION NUMBER: US/09/214,982; CURRENT FILING DATE: 1999-01-14; EARLIER APPLICATION NUMBER: 8-185216 Japan
PRIOR FILING DATE: 1998-12-22
PRIOR APPLICATION NUMBER: US 60/124,967
PRIOR PILING DATE: 1999-03-18
PRIOR PILING DATE: 1999-11-08
NUMBER OF SEQ ID NOS: 130
SOFTWARE: Patentin version 3.2
LENGTH: 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 22, Application US/09169079 Patent No. 6824777
                                                                                                                                                                                                                                                                                                                                                                                       11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 ASELGKSTNTF 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 ASELGKSTNTF 131
                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ASELGKSTNTF 12
```

ठ g

```
ö
                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                3: Evenson, McKeown, Edwards & Lenahan P.L.L.C. 1200 G Street, NW, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 3; Length 321;
                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAPTE 2003
CAPTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
FLING DATE:
CLASSIFICATION: 536
ATTONNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D.
REGISTRATION NUMBER: 26,269
REGISTRATION NUMBER: 26,269
REGISTRATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRAK: (202) 628-8800
      90.9%; Pred. No. 0.21; ive 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 51; DB 3, Pred. No. 0.64; 1; Mismatches
                                                                                                                                                                         US-08-15-795-9
; Sequence 9, Application US/08915795
; Patent No. 6235713
; GENERAL INFORMATION:
; APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
; APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
ADDRESSEE: Evenson, McKeown, Edwar.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Search completed: April 1, 2005, 09:36:14 Job time : 28.8493 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 1200 G Street, NW, Suite 7
CITY: Washington
STATE: DC
COUNTRY: United States of America
ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70.8%;
90.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 321 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein
ORIGINAL SOURCE:
1 TISSUE TYPE: Mouse Lung
US-08-915-795-9
    Best Local Similarity 90.5
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (202) 628-884
TELEX: N/A
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 70.8
Best Local Similarity 90.9
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30 ASELGKTINTF 40
                                                                   2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                       RESULT 15
                                                                   ઠે
                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                              FERNERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION:

FILE REFERENCE: CL001307

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

PRIOR FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOUTHWARE: PERSENCE FOR WINDOWS VERSION 4.0
                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14

US-09-847-524-6

US-09-847-524-6

Sequence 6, Application US/09847524

Patent No. 6689352

GENERAL INFORMATION:
APPLICANT: ACHEN, MARC G

TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL

TITLE OF INVENTION: A METHOD FOR ACTIVATING ONLY THE VASCULAR ENDOTHELIAL

TITLE OF INVENTION: GROWNTH FACTOR RECEPTOR-3 AND USES THEREOF

CURRENT APPLICATION NUMBER: US/09/847,524

CURRENT FILING DATE: 201-05-03

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PATENTIN VOY: 2.0
                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                ö
                                                                                                                                                                                    75.0%; Score 54; DB 4; Length 354; 100.0%; Pred. No. 0.22; Artive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 54; DB 4; Length 362;
Pred. No. 0.22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70.8%; Score 51; DB 4; Length 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75.0%; Scor.
100.0%; Pred. No. v.
; EARLIER FILING DATE: 1996-07-15
; NUMBER OF SEQ ID NOS: 34
; SCOTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 354
; TYPE: PRT
ORGANISM: Homo sapiens
US-09-214-982-1
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 11286, Application US/09949016
Patent No. 6812339
                                                                                                                                                                 Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 6
LENGTH: 110
TYPE: PRT
ORGANISM: Murinae gen. sp
                                                                                                                                                                                                                                                                                                        121 ASELGKSTNTF 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 129 ASELGKSTNTF 139
                                                                                                                                                                                                                                                                      2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Human.
                                                                                                                                                                                                                                                                                                                                                                                             US-09-949-016-11286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-949-016-11286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 11286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-847-524-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
```

ઠે 원

THIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

April 1, 2005, 06:17:29 ; Search time 11.6164 Seconds (without alignments) 66.262 Million cell updates/sec Run on:

US-09-761-636A-6 46

1 CNEESLIC 8 Title: Perfect score: Sequence: Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

283416 283416 segs, 96216763 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description			vascular endothell	ovine vascular end	vascular endotheli	Ca2+-transporting	polyketide synthas	hypothetical prote	probable nucleopor	probable cation ef	cytochrome P450 ib	L-aspartate oxidas	retinoblastoma bin	glioma-derived vas	vascular endotheli		probable antigenic		LPS biosynthesis R	glioblastoma RING	laminin beta-1 cha	hypothetical prote	ical	vascular endotheli	vascular endotheli	malate dehydrogena	uncharacterized co	hypothetical prote	protein-glutamate	conserved hypothet
SUMMARIES		A33/8/	B49530	857956	B40080	A45761	PN0637	T42421	T50074	H71078	A40938	T51421	178879	A35987	B44881	A44881	AF0123	G90130	D69143	JC7562	MMHUB1	876289	E72459	S52130	A41551	S13587	G97328	E86465	A82206	B72321
DB		<b>V</b>	7	0	~				~	7	-	~		~	~	~	7	7	~	~	-	~	~	~	~	~	7	7	0	7
Length	1 6	120	133	146	190	1115	4427	351	1778	295	501	642	1722	190	190	214	291	325	350	551	1786	169	183	190	232	272	290	338	358	376
* Query Match		2.01	78.3	78.3	78.3	78.3	76.1	75.0	75.0	73.9	73.9	73.9	73.9	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7		9.69	9.69	9.69	9.69	9.69	9.69		9.69
Score		9 0				36	35	34.5	34.5	34	34	34	34	33	33		33	33		33						32		32	32	32
Result No.		٠,	7	m	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

1-deoxy-D-xylulose	malate dehydrogena	malate dehydrogena	hypothetical prote	malate dehydrogena	malate dehydrogena	malate dehydrogena	malate dehydrogena	malate dehydrogena	malate dehydrogena	hypothetical prote	probable kinase YP	hypothetical prote	glycosyltransferas	hypothetical prote	protein F23B2.4 [i
H87486	JH0151	S13588	T16656	S17781	DEMZMC	S20743	S52268	833066	S38346	T15416	AF0118	AG0179	H97186	T21306	H88772
7	~	~	~	~	Н	~	7	7	N	~	~	7	~	7	0
399	429	429	429	430	432	432	435	441	441	463	765	992	1044	1047	1124
9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69
32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

```
A33787
Vascular endothelial growth factor (version 1) - bovine
Vispecies: Bop primigenius faurus (cattle)
Vascular endothelial growth factor (version 1) - bovine
CiSpecies: Bop primigenius faurus (cattle)
CiSpecies: Bop primigenius faurus (cattle)
CiAccession: A33787
Riffscher, E.; Gospodarowicz, D.; Mitchell, R.; Silva, M.; Schilling, J.; Lau, K.; Crisp,
Richen: Biophys. Res. Commun. 165, 1198-1206, 1989
A;Title: Vascular endothelial growth factor: a new member of the platelet-derived growth
A;Reference number: A33787; MUID:90121225; PMID:2610687
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession: A33787
A;Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78.3%; Score 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

0,											poxv									
Gaps							C;Date: 07-Apr-1994 #sequence revision 18-Nov-1994 #text_change 08-Oct-1999		R, Lyttle, D.J.; Fraser, K.M.; Fleming, S.B.; Mercer, A.A.; Robinson, A.J.		A, Title: Homologs of vascular endothelial growth factor are encoded by the poxvi							6889		A,Note: sequence extracted from NCBI backbone (NCBIN:141420, NCBIP:141425)
0;					97.		0-80		neen,		oded							:D:945		BIP:1
lels					rf viz		change		Robi		re enc							.l, PJ		20, NC
1; Indels							ext_c		A.A.		or an	780						29220	tion	14142
, <u>, , , , , , , , , , , , , , , , , , </u>					14.7		994 #t		ccer,		fact	82547						N: AAB	ransla	CBIN
11; ches					A2R,		lov-15		Me		growth	PMID						PIDI	de tu	ne (1
Pred. No. 11; 1; Mismatches					nolog		1-81 ו		S.B		lial	5465;						26897	leot	ackbo
Prec					or hon		risior		eming,		dothe]	:94076						ID:94	ch nuc	NCBI 1
Guerry March Similarity 75.0%; Perd. No. 11; Matches 6; Conservative 1; Mismatches 1; Indels					fact		ce re	I	.: F1		ar en	MUID						20; N	nt wi	from
y rvati	œ	67			rowth		eguen		Α.Χ	994	ascul	9530;					^	:8675	siste	cted
Similarity 75.0 6; Conservative	1 CNEESLIC 8	60 CNDESLEC 67			ialg	rus	94 #8	30	raser	92, 1	of v	r: A4		30	nary	DNA	<lyt< td=""><td>B: GB</td><td>incon</td><td>extra</td></lyt<>	B: GB	incon	extra
Simi 6;	1 CNE	CNDE			lothel	rf vi	pr-19	B495	ц., _н	3, 84-	ologe	numbe	NZ2	B495	elimi	:ype:	1-133	rence	ence	lence,
guery march Best Local Matches		•	7		ır end	es: C	07-7	sion:	e, D.	). 68	: Hou	ence	ints:	sion:	1d : 81	ulet	lues:	3-refe	Bedr	Bedr
Best Loc Matches	>-	0	RESULT 2	B49530	vascular endothelial growth factor homolog A2R, 14.7K - Orf virus	C;Species: Orf virus	, Date	C; Accession: B49530	, Lytt]	. Vire	Title;	A;Reference number: A49530; MUID:94076465; PMID:8254780	A; Contents: NZ2	A; Accession: B49530	A;Status: preliminary	A; Molecule type: DNA	A; Residues: 1-133 < LYT>	A;Cross-references: GB:S67520; NID:9456897; PIDN:AAB29220.1; PID:9456899	A; Note: sequence inconsistent with nucleotide translation	Note
	ò	qq	æ	m	ž	ט	υ	U	æ	ה	ď	K	ď	A	Ø	Ø	A	Ø	A	Ø

irus orf v

ö

Gaps

ö

1; Indels

DB 2; Length 133;

Query Match 78.3%; Score 36; DB Best Local Similarity 75.0%; Pred. No. 12; Matches 6; Conservative 1; Mismatches

1 CNEESLIC 8 ||:||| | 71 CNDESLEC

ð 엄

RESULT 3 S57956

```
A;Status: nucleic acid sequence not shown
A;Status: nucleic acid sequence not shown
A;Status: nucleic acid sequence not shown
A;Status: nucleic acid sequence not shown
A;Status: nucleic acid sequence not shown
A;Status: nucleic acid sequence not shown
A;Residues: 184-282;382-850;926-1115;1409-1648;1665-1761;1876-2344;2469-2560;2609-2702;28
R;Kunst, F; Ogassawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berterc C.; Bron, S.; Brouillet, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.
Nature 390, 249-256, 1997
A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallerr iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A;Authors: Lauber, J.; Lazarevic, V.; Levine, A.; Liu, H.; Masuda, S.; Maueel, Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Scanch, A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, T.; Winters, P.; Wipat, A.; Tamako, T.; Yoshikaw, H.; Danchin, A.; Tamako, W.; Tamako, H.; Vara, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata, K.; Vata,
                                              C;Accession: A45761
R;Murakami, K.; Tanabe, K.; Takada, S.
J. C611 Sci. 97, 487-495, 1990
A;Title: Structure of a Plasmodium yoelii gene-encoded protein homologous to the Ca(2+)-1
A;Reference number: A45761; MUID:91161669; PMID:2150071
                                                                                                                                                                                                                                                                                                                                                 A/Status: preliminary
A/Molecule type: DNA
A/Rosidues: 1-1115 - AUNRA
A/Scosidues: 1-1115 - AUNRA
A/SCOSS-Teferences: UNIPROT: Q27764, GB:X55197; NID:g10097; PIDN:CAA38982.1; PID:g10098
C/Superfamily: Na+/K+-transporting ATPase alpha chain; ATPase nucleotide-binding domain }
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyketide synthase pksL - Bacillus subtilis
C;Species: Bacillus subtilis
C;Date: 19-May-1994 #sequence revision 06-Peb-1995 #text_change 09-Jul-2004
C;Date: 19-May-1994 #sequence revision 06-Peb-1995 #text_change 09-Jul-2004
C;Accession: S25021; PN0637; B69679
R;Scotti, C.; Platti, M.; Cuzzoni, A.; Tognoni, A.; Grandi, G.; Galizzi, A.; Albertini, J
Rubmitted to the EMBL Data Library, July 1992
A;Description: A Bacillus subtilis large ORF coding for a polypeptide highly similar to g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Status: preliminary
A,Rolecule type: DNA
A,Rolecule type: DNA
A,Rolecule type: DNA
A,Rolecule type: DNA
A,Rossidues: 1-427 <SCO>
A,Cross_references: UNIPROT:005470; EMBL:Z14098; NID:g40057; PIDN:CAA78479.1; PID:g40058
R,Scotti, C.; Piatti, M.; Cuzzoni, A.; Perani, P.; Tognoni, A.; Grandi, G.; Galizzi, A.;
Gene 130, 65-71, 1919
A,Title: A Bacillus subbilis large ORF coding for a polypeptide highly similar to polyket
A,Reference number: PN0637; MUID:93345824; PMID:8344529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 14427 <KUN>
A;Residues: 14427 <KUN>
A;Cross-references: GB:299113; GB:AL009126; NID:g2634090; PIDN:CAB13602.1; PID:g2634102
A;Cross-references: GB:Z99113; GB:AL009126; NID:g2634090; PIDN:CAB13602.1; PID:g2634102
C;Comment: This enzyme is composed of four synthase units. Unit1 comprises beta-ketosynthase; acyl-carrier protein domains. Unit3 comprises beta-ketosynthase, acyl-carrier protein and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    o,
03-Jun-1993 #sequence_revision 03-Jun-1993 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;689-866/Domain: ATPase nucleotide-binding domain homology <ATN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78.3%; Score 36; DB 2; Length 1115; 62.5%; Pred. No. 76; 1; Indels cive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A, Status: nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 62.5
Matches 5, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Reference number: S25021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     486 CNEASILC 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Keywords: hydrolase
                                                                                                                                                                                                                                                                                                             A; Accession: A45761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Gene: pksL; pksx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,Accession: B40080
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Resiouse: 1-190 c_LEU>
A;Cross-references: UNIPROT:P15691; GB:M32976; NID:g163006; PIDN:AAA30502.1; PID:g163007
B;Tischer, B.; Gospodarowicz, D.; Mitchell, R.; Silva, M.; Schilling, J.; Lau, K.; Crisp
Biochem, Biophys Res. Commun. 165, 11989
A;Title: Vascular endothelial growth factor: a new member of the platelet-derived growth
A;Reference number: A33787; MUID:90121225; PMID:2610687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 27-190 <TIS>
A;Residues: 27-190 <TIS>
A;Coss-references: GB:M31836; NID:g163808; PIDN:AAA30804.1; PID:g163809
A;Cross-references: GB:M31836; NID:g163808; PIDN:AAA30804.1; PID:g163809
B;Perrara, N.; Henzel, W.J.
Biochem: Biophys. Res. Commun. 161, 851-858, 1989
A;Title: Pituitary follicular cells secrete a novel heparin-binding growth factor specif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-146 <RED>
A;Cross-references: UNIPROT:P50412; EMBL:X89506; NID:g899350; PIDN:CAA61677.1; PID:g8993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title: Vascular endothelial growth factor is a secreted angiogenic mitogen.
Reference number: A40080; MUID:90069608; PMID:2479986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: protein
A;Residues: 27-31 «FER»
C;Keywords: alternative splicing; glycoprotein
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-190/Product: vascular endothelial growth factor #status predicted <MAT>
F;100/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Bos primigenius taurus (cattle)
C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text_change 09-Jul-2004
C;Accession: B40080; B33787; Ā33255
R;Leung, D.W.; Cachianes, G; Kuang, W.J.; Goeddel, D.V.; Ferrara, N.
Science 246, 1306-1309, 1989
A;Title: Vascular endothelial growth factor is a secreted angiogenic mitogen A;Reference number: A40080; MUID:90069608; PMID:2479986
                                                                                                                                                                                ovine vascular endothelial growth factor - sheep
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Accession: S57956
R;Redmer, D.A.; Dai, Y.; Li, J.; Jones, S.C.; Moor, R.M.
submitted to the EMBL Data Library, July 1995
A;Reference number: S57956
A;Accession: S57956
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
B40080
vascular endothelial growth factor precursor (version 2) - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.3%; Score 36; DB 2; Length 190; 75.0%; Pred. No. 17; ive 1; Mismatches 1; Indels
```

Indels

5,

Score 36; DB 2; Pred. No. 13; 1; Mismatches

78.3%; 75.0%;

Query Match Best Local Similarity

6; Conservative

Matches

ઠે ୍ୟୁ

CNDESLEC 93 1 CNEESLIC 8

```
A45761
Ca2+-transporting ATPase (BC 3.6.3.8) - Plasmodium yoelii
Ç;Species: Plasmodium yoelii
RESULT 5
```

Conservative

Best Local Similarity

Matches

Query Match

A; Accession: A33255

CNEESLIC 8

Н

셤

```
probable cation efflux system protein czcD - Pyrococcus horikoshii C;Species: Pyrococcus horikoshii C;Species: Pyrococcus horikoshii C;Species: Pyrococcus horikoshii C;Species: 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 12-Jul-2004 C;Accession: H71078 Fixwarabayasi, Y.; Sawada, M.; Horikawa, H.; Haikawa, Y.; Hino, Y.; Yamamoto, S.; Sekine M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguchi, DNA Res. 5, 55-76, 1998 A;Tile: Complete sequence and gene organization of the genome of a hyper-thermophilic and A;Tile: Complete sequence and gene organization of the genome of a hyper-thermophilic and A;Tile: Distance: Proteininary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-295 cKAW>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytochrome P450 ib - rabbit
N;Contains: oxidoreductase (EC 1.-...)
C;Species: Oxyctolagus cuniculus (domestic rabbit)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Accession: A40938
R;Kikuta, Y; Sogawa, K; Haniu, M; Kinosaki, M; Kusunose, E; Nojima, Y; Yamamoto, S. J. Biol. Chem. 266, 17821-17825, 1991
A;Title: A novel species of cytochrome P-450 (P-450-ib) specific for the small intestine
A;Reference number: A40938; MUID:92011499; PMID:1717443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L-aspartate oxidase-like protein - Arabidopsis thaliana
N;Alternate names: protein T9L3_60
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Bacies: Arabidopsis thaliana (mouse-ear cress)
C;Accession: T51421
R;Sato, S.; Nakamura, Y.; Kaneko, T.; Kato, T.; Asamizu, E.; Kotani, H.; Tabata, S.; Mewe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: mRNA
A;Residues: 1-501 «KIK»
A;Cresidues: 1-ferences: UNIPROT:P52786; GB:D90405; NID:g217717; PIDN:BAA14401.1; PID:g217718
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Experimental source: strain OT3
A; Note: this accession replaces an interim accession for a sequence replaced by GenBank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Superfamily: human cytochrome P450 CYP2D6; cytochrome P450 homology C;Reywords: chromopycotein; home; iron; metalloprotein; oxidoreductase F308-465/Domain: cytochrome P450 homology <CYP.
F;308-465/Domain: cytochrome P450 homology <CYP.
F;447/Binding site: heme iron (Cys) (axial ligand) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.9%; Score 34; DB 1; Length 501;
85.7%; Pred. No. 90;
ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73.9%; Score 34; DB 2; Length 295; 62.5%; Pred. No. 58; ive 2; Mismatches 1; Indels
         1748 CNEESLTDAIC 1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 73.9
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 85.7
les 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        283 CKEKSMIC 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                297 NEENLIC 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 NEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: A40938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A, Note: th.
C, Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
C;Superfamily: Bacillus subtilis polyketide synthase pksL; 3-oxoacyl-[acyl-carrier-prote C;Keywords: acyltransferase; carrier protein P;343-758/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <0AS1> F;1410-1591/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <0AS2> F;1485-2255/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <0AS2> F;2485-2559/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <0AS3> F;2626-2700/Domain: acyl carrier protein homology <ACP2> F;2783-3181/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <0AS3> F;376-374/Domain: acyl carrier protein homology <ACP2> F;385-3922/Domain: acyl carrier protein homology <ACP3> F;385-3922/Domain: acyl carrier protein homology <ACP3> F;385-3922/Domain: acyl carrier-protein] synthase I homology <0AS4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1798 «MCD>
A;Residues: 1-1718 «MCD>
A;Cross-references: UNIPROF:Q9UTK4; EMBL:AL133357; PIDN:CAB62415.1; GSPDB:GN00066; SPDB:A;Experimental source: strain 972h(-); cosmid c1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein - fission yeast (Schizosaccharomyces pombe) (fragment)
C;Species: Schizosaccharomyces pombe
C;Species: Schizosaccharomyces pombe
C;Species: 30-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 21-Jul-2000
C;Accession: T42421
R;Yoshioka, S:; Kato, K.; Nakai, K.; Okayama, H.; Nojima, H.
DNA Res: 4, 363-369, 1997
A;Title: Identification of open reading frames in Schizosaccharomyces pombe cDNAs.
A;Reference number: Z17323, MUID:98162722; PMID:9501991
A;Accession: T42421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 1-351 <YOS>
A;Cross-references: EMBL:D89145; NID:g1749497; PIDN:BAA13807.1; PID:g1749498
A;Experimental source: strain PR745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    probable nucleoporin [imported] - fission yeast (Schizosaccharomyces pombe) C; Species: Schizosaccharomyces pombe C; Species: Schizosaccharomyces pombe C; Date: 09-Unn-2000 #sequence_revision 09-Unn-2000 #text_change 09-Unl-2004 C; Accession: T50074 #sqandream, M.A.; Barrell, B.G.; Seeger, K.; Harris, D. submitted to the EMBL Data Library, December 1999 A; Reference number: Z25034 A; Accession: T50074 A; Accession: T50074 A; Accession: London Library, Lanslated from GB/EMBL/DDBJ A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,
.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2; Length 351;
                                                                                                                                                                                                                                                                                                                                                                                                 Length 4427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                          76.1%; Score 35; DB 2; Length 442 62.5%; Pred. No. 3.7e+02; ative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 34.5; DB 2;
Pred. No. 2.1e+02;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 34.5; DB
Pred. No. 54;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 72.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 72...
Best Local 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNEESLIDAIC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CNEESL---IC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CNEESL---IC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1205 CNEEGOVC 1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene: SPDB:SPAC1486.05
                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Map position: 1
A; Introns: 139/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

us-09-761-636a-6.open.rpr

ö

Gaps

ô

Length 190;

DB 2;

```
Vascular endothelial growth factor-1 precursor - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Accession: B44881, A43351, A61029
R;Breier, G.; Albrecht, U.; Sterrer, S.; Risau, W.
Development 114, 521-532, 1992
A;Title: Expression of vascular endothelial growth factor during embryonic angiogenesis & A;Reference number: A44881; MUID:92274860; PMID:1592003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues: 1-190 <a href="https://doi.org/10.00731">https://doi.org/10.00731</a>; Residues: 1-190 <a href="https://doi.org/10.00731">https://doi.org/10.00731</a>; References: UNIPROT.000731; GB:S38083; NID:g249858; PIDN:AAB22253.1; PID:g249859
A; Experimental source: embryo.
A; Experimental source: embryo.
B; Chories: sequence extracted from NCBI backbone (NCBIN:107622, NCBIP:107623)
R; Claffey, K.P.; Wilkison, W.O.; Spiegelman, B.M.
J; Claffey, K.P.; Wilkison, W.O.; Spiegelman, B.M.
J; Claffey, K.P.; Wilkison, W.O.; Spiegelman, B.M.
A; Title: Vascular endothelial growth factor. Regulation by cell differentiation and activ.
A; Reference number: A43351; MUID:92355593; PMID:1644816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-116, 'ER', 119-190 <CLA>
A; Cross-references: GB: M95200; NID: 9202350; PIDN: AAA40547.1; PID: 9202351
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665, NCBIP: 110675)
A; Rosenthal, R.A.; Megyesi, J.F.; Henzel, W.J.; Ferrara, N.; Folkman, J.
Growth Factors 4, 53-59, 1990
A; Title: Conditioned medium from mouse sarcoma 180 cells contains vascular endothelial grant R; Reference number: A61029; MUID: 91197543; PMID: 2085441
                                       A;Residues: 1-190 <CON>
A;Cross-references: GB:M32167; NID:g204287; PIDN:AAA41211.1; PID:g204288
                                                                                                                             Score 33; DB;
Pred. No. 61;
2; Mismatches
                                                                                                                                    71.7%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 62.5%;
Matches 5; Conservative
                                                                                                                                Query Match 71.7
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                               ||:|:| |
86 CNDEALEC 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ||:|:| |
CNDEALEC 93
                                                                                                                                                                                                                                                              1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CNEESTIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
         A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Accession: B44881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Accession: A44881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Accession: A43351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A44881
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          retinoblastoma binding protein 2 - human C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Date: 17-Mar-2000 #sequence_revision 17-Mar-2000 #text_change 09-Jul-2004 C;Accession: 178879; S1654 R;Fattaey, A.R.; Helin, K.; Dembski, M.S.; Dyson, N.; Harlow, E.; Vuocolo, G.A.; Hanobik Oncogene 8, 3149-3156, 1993 A;Title: Characterization of the retinoblastoma binding proteins RBP1 and RBP2. A;Reference number: 158383; MUID:94020841; PMID:8414517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Residues: 1-1722 <FAT>
A;Cross-references: UNIPROT:P29375; GB:S66431; NID:g435777; PIDN:AAB28544.1; PID:g435778
A;Cross-references: UNIPROT:P29375; GB:S66431; NID:g435777; PIDN:AAB28544.1; PID:g435778
B; Particles 352, 251-254, 1991
A;Title: Gloning of CDNAs for cellular proteins that bind to the retinoblastoma gene produced on the complex of S16953; MUID:91312450; PMID:1857421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A35987
glioma-derived vascular endothelial cell growth factor - rat
glioma-derived vascular endothelial cell growth factor - rat
C;Species: Rattus norregicus (Norway rat)
C;Species: Rattus norregicus (Norway rat)
C;Date: 16-Nov-1990 #sequence_revision 16-Nov-1990 #text_change 05-Nov-1999
C;Accession: A35887
R;Conn, G; Bayne, M.L.; Soderman, D.D.; Kwok, P.W.; Sullivan, K.A.; Palisi, T.M.; Hope, Proc. Natl. Acad. Sci. U.S.A. 87, 2628-2632, 1990
A;Title: Amino acid and cDNA sequences of a vascular endothelial cell mitogen that is ho
A;Reference number: A35987; MUID:90207249; PMID:2320579
                                                                                                                                                                                                                                                                                  A,Map position: 5
A;Introns: 43/2; 158/3; 239/3; 258/3; 278/3; 299/2
A;Note: T9L3_60
C;Superfamily: fumarate reductase flavoprotein; 3-oxosteroid 1-dehydrogenase homology;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1722;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 34; DB 2; Length 642;
Pred. No. 1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                             A;Experimental source: cultivar Columbia; BAC clone T9L3
submitted to the Protein Sequence Database, August 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 34; DB 1; Le
Pred. No. 2.6e+02;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A,Map position: 3q21-3qter
C;Superfamily: human retinoblastoma binding protein 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Status: not compared with conceptual translation
                                                                                                                                                                                            EMBL: AL391149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Cross-references: GDB:119548; OMIM:180280
                                                                                            A;Status: preliminary
A;Molocule type: Dn
A;Residues: 1-642 <SAT>
A;Cross-references: UNIPROT:Q9LER1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73.9%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nilarity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Molecule type: mRNA
Residues: 1102-1562,'KKK' <DEF>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 73.9
Best Local Similarity 62.5
Matches 5, Conservative
                             Reference number: Z25394; Accession: T51421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                || | |:|
CNPERLVC 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154 CDEETVVC 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNEESLIC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: S16954
A; Status: not compar
A; Molecule type: mRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

```
Vascular endothelial growth factor-3 precursor - mouse
N;Contains: vascular endothelial growth factor-2; vascular permeability factor
C;Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text_change 09-Jul-2004
C;Accession: A44881; C44881; Ā60932; S52136
R;Brafer, G; Albrecht, U; Sterrer, S; Risau, W.
Development 114, 521-532, 1992
A;Title: Expression of vascular endothelial growth factor during embryonic angiogenesis & A;Reference number: A4881; MUID:92274860; PMID:1592003
A;Molecule type: protein
A;Residues: 27-38 <ROS>
C;Reywords: alternative splicing; angiogenesis; dimer; disulfide bond; glycoprotein; mitc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-214 <BRE>
A;Residues: 1-214 <BRE>
A;Cross-references: UNIPROT:Q00731; GB:S37052; NID:g249856; PIDN:AAB22252.1; PID:g249857
A;Experimental source: embryo
A;Note: sequence extracted from NCBI backbone (NCBIN:104677, NCBIP:104678)
                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                       ö
                                                                                                                                                              Score 33; DB 2; Length 190;
Pred. No. 61;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                               1; Indels
```

```
A, Molecule type: mRNA
A, Residues: 1-140, 209-214 (-8R2>
A, Residues: 1-140, 209-214 (-8R2>
A, Residues: 1-140, 209-214 (-8R2>
A, Residues: 1-140, 209-214 (-8R2>
A, Residues: 1-140, 209-214 (-8R2)
A, Note: sequence extracted from NOBI backbone (NCBIN:107624, NCBIP:1.07625)
B, Clauss, M.; Gerlach, M.; Gerlach, H.; Brett, J.; Wang, F.; Familletti, P.C.; Pan, Y.C.
B, Exp. Med. 172, 1535-1545, 1990
A, Reference number: A60932; MUID:91079755; PMID:2258694
A, Recession: A60932
A, Molecule type: protein
A, Residues: 27-33 (-CLA>
B, Residues: 27-33 (-CLA>
R, Sugihara, T.; Kaul, S.C.; Mitsui, Y.; Wadhwa, R.
Blochim. Blophys. Acta 1224, 365-370, 1994
A, Title: Enhanced expression of multiple forms of VEGF is associated with spontaneous in A, Recession: S52136; MUID:95101726; PMID:7803491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Status: preliminary
A; Molecule type: protein
A; Molecule type: protein
A; Molecule type: protein
A; Residues: 27-46 < SUGS-
C; Comment: Homodimers could be demonstrated for recombinant VEGF-2 but not VEGF-3.
C; Keywords: alternative splicing; angiogenesis; disulfide bond; glycoprotein; homodimer;
F; 1-26/Domain: signal sequence #status predicted < SIG>
F; 1-24/Product: vascular endothelial growth factor-3 #status experimental < MAT>
```

ö

0; Gaps

Query Match 71.7%; Score 33; DB 2; Length 214; Best Local Similarity 62.5%; Pred. No. 67; Matches 5; Conservative 2; Mismatches 1; Indels

Search completed: April 1, 2005, 09:33:22 Job time : 13.6164 secs

1 CNEESLIC 8 ||:|:| | 86 CNDEALEC 93

දු ද

THIS PAGE BLANK (USPTO)

us-09-761-636a-5.open.rpr

	Ltd.
15.1.6	Compugen
version	- 2005
SenCore	1993
Ģ	(C
	Copyright

OM protein - protein search, using sw model

April

1, 2005, 06:17:29; Search time 18:8767 Seconds (without alignments) 66.262 Million cell updates/sec

US-09-761-636A-5 72 Title:

1 CASELGKSTNTFC 13 Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

pir 79:*
1: pir1:*
2: pir2:*
3: pir3:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		d			SUMMAKIES	
Result No.	Score	Query Match	Query Match Length	DB	ID	Description
1	43	59.7	104	. 2	A39035	ribonuclease-relat
2	41	56.9	397	7	AH1220	acetate kinase hom
٣	41	9		~	AC1574	acetate kinase hom
4	40	55.6		N	T17722	
ß	39	4		~	842384	Kruppel-like prote
9	39	54.2	1117	•	C85018	
7	38	52.8	378	7	G97177	membrane-associate
8	38	52.8	469	N	T46230	NAC2-like protein
6	37	51.4	319	~	A84947	lytB protein [impo
10	37	51.4	421	~	S53818	
11	37	51.4	433	N	S70914	pectinesterase (EC
12	37	51.4		<del>, -1</del>	S35362	protein kinase C (
13	37	51.4		~	T43051	protein kinase C (
14	37	51.4		~	877690	probable membrane
15	36.5	50.7	230	•	809778	hypothetical prote
16	36	50.0		•	B49046	T-cell receptor be
17	36	50.0		~	A84341	hypothetical prote
18	36	50.0	372	~	E85170	hypothetical prote
. 19	36	50.0		~	S34421	м
20	36	50.0		7	H71410	probable RNA helic
21	36	50.0		7	837055	catalase (EC 1.11.
22	36	50.0		7	S44780	C30A5.5 protein -
23	36	50.0			A71419	probable allene ox
24	36	50.0			T41711	probable alpha-tre
25	36	50.0			869078	hypothetical prote
26	35.5	49.3	224	~	S73823	MG243 homolog H91
27	35.5	49.3	266	N	T01199	germin homolog F21
28	. 35	48.6	47	~	JC6158	viral capsid prote
29		48.6	62	~	T28346	ORF MSV185 hypothe

toxin CssII - Mexi	cdu3 protein - Clo	conserved hypothet	hypothetical prote	probable lipoprote	hypothetical prote	hypothetical prote	inner cell wall ma	hypothetical prote	hypothetical prote	hypothetical prote	alanine racemase,	acetate kinase (EC	acetate kinase (EC	competence-damage	protein kinase (EC
A27406	PC4272	D82152	H71899	AF0199	T33545	867199	877699	AF2007	S27641	AF1990	H82329	E64239	D81339	AI1611	T43234
7	7	~	~	7	~	7	0	7	0	7	~	~	~	7	7
99	80	155	182	207	218	228	238	265	276	308	375	393	396	415	483
48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6
35	35	35	35	35	35	35	35	35	32	32	35	35	35	35	35

## ALIGNMENTS

		l anti-tumor protein - northern leopard fr
		anti-tumc
LT 1	35	nuclease-related

rog (fragment)

C.Species: Rana pipiens (northern leopard frog)
C.Date: 31-Jul-1991 #sequence_revision 31-Jul-1991 #text_change 09-Jul-2004
C.Accession: A39035
G.Bate: 31-Jul-1991 #sequence_revision 31-Jul-1991 #text_change 09-Jul-2004
C.Accession: A39035
G.Bate: A39035
A.Title: Amino acid sequence of an anti-tumor protein from Rana pipiens oocytes and early A;Reference number: A39035; MUID:91093131; PMID:1985896
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Accession: A39035
A;Acc

Gaps . 0 Length 104; 4; Indels 5 Score 43; DB 2 Pred. No. 2; 1; Mismatches 59.7%; 61.5%; 8; Conservative Query Match Best Local Similarity Matches 8; Conserv

ö

CKYKLKKSTNKFC 87 1 CASELGKSTNTFC 13 75 ò 셤

RESULT 2

dectate kinase homolog AckA2 [imported] - Listeria monocytogenes (strain EGD-e)
C;Species: Listeria monocytogenes
C;Species: Listeria monocytogenes
C;Species: Listeria monocytogenes
C;Species: Listeria monocytogenes
C;Accession: Al1220
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker,
J; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fshin, H.;
Coience 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Mat
ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland,
A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669

A; Accession: AH1220

A;Status: preliminary A;Molecule type: DNA A;Residues: 1-397 <GLA> A;Cross-references: UNIPROT:Q8Y7V1; GB:NC_003210; PIDN:CAC99246.1; PID:g16410584; GSPDB:C A;Experimental source: strain EGD-e C;Genetics:

A;Gene: AckA2 C;Superfamily: Acetate/propionate kinase

Score 41; DB 2; Length 397; Pred. No. 16; 56.9%; 72.7%; Query Match Best Local Similarity

N

```
54.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54.2%;
58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52.8%;
                                                                                                                                                                                                                                                                                                                                                                  229 CKSDLGSPTQTF 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ||||: ::||
922 CLSELGELSSTF 933
                                                                                                                                                                                                                                    Query Match
Best Local Similarity 58.3
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 52.8
Best Local Similarity 63.6
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 58.3
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                            1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-378 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: AT4g01400
A;Map position: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C, Genetics:
A, Gene: CAC2253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                           C;Species: Listeria innocua
C;Species: Listeria innocua
C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 16-Aug-2004
C;Accession: ACI574
C;Accession: ACI574
C;Accession: A.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker
C;Accession: ACI574
A;Authors: Karet, U.; Buchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.
Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Ma
A;Authors: Kreft, J.; Kuhn, M.; Titerrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland,
A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: ACI574
A;Residues: 1-397 cGLA>
A;Residues: 1-397 cGLA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A,Cross-references: UNIPROT: Q92CN9, GB:AL592022; PIDN:CAC96363.1; PID:g16413591; GSPDB:GA; Experimental source: strain Clip11262
A; Genetics: AckA2
C; Superfamily: Acetate/propionate kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q84551; EMBL:U42580; NID:g4028896; PIDN:AAC96599.1
A;Experimental source: specific host Chlorella strain NC64A
C;Genetics:
A;Note: A231L
                                                                                                                                                                                            acetate kinase homolog AckA2 [imported] - Listeria innocua (strain Clip11262)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein A231L - Chlorella virus PBCV-1
C;Species: Chlorella virus PBCV-1
C;Date: 15-Oct_1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kruppel-like protein - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 07-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 09-Sep-1997
C;Accession: S42384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 40; DB 2; Length 383;
Pred. No. 23;
1; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 41; DB 2; Length 397;
Pred. No. 16;
    Indels
  3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Status: preliminary; translated from GB/EMBL/DDBJ; Molecule type: DNA
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Chlorella virus PBCV-1
C;Date: 15-Oct-1999 #sequence_revision 15-Oct
C;Accession: T1772
R;Graves, M.V.; Van Etten, J.L.
Submitted to the EMBL Data Library, May 1999
A;Reference number: Z18806
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      56.9%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304 CVMNIGKKKNEFC 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 72.,
8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAIEAGKSVNT 224
                                                                               214 CAIEAGKSVNT 224
                                            1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: T17722
.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                            ò
                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

```
hypothetical protein AT4g01400 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Accession: S6518
R;anonymous, The European Union Arabidopsis Genome Sequencing Consortium, The Cold Spring Nature 402, 769-777, 1999
A;Title: Sequence and analysis of chromosome 4 of the plant Arabidopsis thaliana.
A;Reference number: A85001; MUID:20083488; PMID:10617198
A;Accession: C85018
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 membrane-associated sensory histidine kinase-like ATPase [imported] - Clostridium acetobu C; Species: Clostridium acetobutylicum C; Species: Clostridium acetobutylicum C; Species: 14-Sep-2001 #sequence_revision 14-Sep-2001 #text_change 09-Jul-2004 C; Accession: G97177 R; Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.; Zeng, Q.; Gibson, R.; Lee, J.; Daly, M.J.; Bennett, G.N.; Koonin, E.V.; Smith, D.R. J. Bacteriol. 183, 4823-4838, 2001 A; Title: Genome Sequence and Comparative Analysis of the Solvent-Producing Bacterium Clost A; Reference number: A96900; MuID:21359325; PMID:21359325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: DNA
A;Residues: 1-1117 <STO>
A;Cross-references: UNIPROT:Q9M133; GB:NC_001268; NID:g7267637; PIDN:CAB80949.1; GSPDB:GN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:097GW2; GB:AE001437; PIDN:AAK80210.1; PID:g15025255; GSPDB:Gl
A;Experimental source: Clostridium acetobutylicum ATCC824
                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 38; DB 2; Length 378;
Pred. No. 51;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                          Length 409
                                                                                                                                                                                              A.Cross-references: EMBL:Z30662; NID:g459581; PID:g459587
C;Genetics:
A;Introns: 10/3; 48/3; 182/3; 315/3; 360/3
                                                                                                                                                                                                                                                                                                                                Score 39; DB 2;
Pred. No. 37;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 39; DB 2
Pred. No. 93;
3; Mismatches
submitted to the EMBL Data Library, March 1994 A;Reference number: $42368 A;Accession: $42384 Status: preliminary A;Molecule type: DNA A;Residues: 1-409 <SML>
```

```
pectinesterase (EC 3.1.1.11) precursor - Erwinia chrysanthemi
N;Alternate names: pectin methylesterase
C;Species: Erwinia chrysanthemi
C;Species: Erwinia chrysanthemi
C;Species: 20-0ct-1996 #sequence revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S70914; S70913
R;Shevchik, V.E.; Condemine, G.; Hugouvieux-Cotte-Pattat, N.; Robert-Baudouy, J.
Submitted to the EMBL Data Library, Rebruary 1995
A;Description: Characterization of pectin methylesterase B, an outer membrane lipoproteir
A;Reference number: S70914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 1-433 <SHE>
A; Residues: 1-433 <SHE>
A; Cross-references: UNIEROT: Q47474; EMBL: X84665; NID: 91212890; PIDN: CAAS9151.1; PID: 91213
R; Shevchik, V.E.; Condemine, G.; Hugouvieux-Cotte-Pattat, N.; Robert-Baudouy, J.
Mol. Microbiol. 19, 455-466, 1996
A; Title: Characterization of pectin methylesterase B, an outer membrane lipoprotein of En A; Reference number: $70913; MUID: 96228695; PMID: 8830237
A; Recession: $70913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direction kinase C (EC 2.7.1.-) pckl - fission yeast (Schizosaccharomyces pombe)
NyAlternate names: pombe C-kinase 1
C;Species: Schizosaccharomyces pombe
C;Daccesion: S35362; T37866; T38203
R;Toda, T.; Shimanuki, M.; Yanagida, M.
EMBO J. 12, 1987-1995, 1993
A;Title: Two novel protein kinase C-related genes of fission yeast are essential for cell
A;Reference number: S35362; MUID:99259141; PMID:8491190
                        A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-421 <SUJ>
A;Cross-references: UNIPROT:Q91560; GB:U10185; NID:g595379; PIDN:AAA82179.1; PID:g595380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: DNA
A;Residues: 1-988 - TOD>
A;Cross-references: EMBL:D14337; NID:g303938; PIDN:BAA03267.1; PID:g303939
R;Devlin, K.; Churcher, C.M.; Barrell, B.G.; Rajandream, M.A.; Walsh, S.V.
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51.4%; Score 37; DB 2; Length 433; 46.2%; Pred. No. 88; ive 3; Mismatches 4; Indels
                                                                                                                                                          2; Length 421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Residues: 1-53;234-361 «SHA»
A;Cross-references: EMBL:X84665; NID:g1212890; PIDN:CAAS9151.1
A;Experimental source: strain 3937
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Superfamily: pectinesterase pemB
C;Keywords: carboxylic ester hydrolase
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-433/Product: pectinesterase #status predicted <MAT>
                                                                                                                                                          Score 37; DB
Pred. No. 86;
                                                                                                                                                                                                           2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Status: nucleic acid sequence not shown A,Molecule type: DNA
                                                                                                                                                          51.4%;
54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192 CATKAGATINTIC 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 46.2
Matches 6; Conservative
                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                  1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                13 CSGSLGKTANT 23
                                                                                                                               Query Match
Best Local Similarity
-hag 6; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: S35362
A; Accession: S53818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               codon: GTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Gene: pemB
A; Start codo
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                               C;Accession: T46230 C; Mueller-Auer, S.; Schaefer, M.; Zipp, M.; Mewes, H.W.; Lemcke, Sthieger, M.; Zipp, M.; Mewes, H.W.; Lemcke, Submitted to the Protein Sequence Database, December 1999 A;Reference number: Z23026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: S53818
R;Su, J.Y.; Maller, J.L.
Mol. Gen. Genet. 246, 387-396, 1995
A;Title: Cloning and expression of a Xenopus gene that prevents mitotic catastrophe in A;Reference number: S53818; MUID:95157530; PMID:7854324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C,Accession: A84947
R,Shigenobu, S.; Watanabe, H.; Hattori, M.; Sakaki, Y.; Ishikawa, H.
Nature 407, 81-86, 2000
A,Title: Genome sequence of the endocellular bacterial symbiont of aphids Buchnera sp. A,Feference number: A84930; MUID:20445173; PMID:10993077
A,Accession: A84947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
853B18
878B18
C;Species: Xenopus laevis (African clawed frog)
C;Species: Xenopus laevis (African clawed frog)
C;Date: 15-Jul-1995 #sequence_revision 01-8ep-1995 #text_change 09-Jul-2004
                                                                                                                                                     NAC2-like protein - Arabidopsis thaliana
N;Alternate names: protein T9C5.120
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C,Species: Buchnera sp.
C,Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 23-Mar-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 469;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Experimental source: cultivar Columbia; BAC clone T9C5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 37; DB 2;
Pred. No. 66;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lytB protein (imported) - Buchnera sp. (strain APS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL: AL132964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nolecule type: DNA
Residues: 1-319 <STO>
Cross-references: GB:AP000398; GSPDB:GN00144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 38;
Pred. No. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A Experimental source: strain APS C, Genetics: A; Genetics: 81147 C; Superfamily: penicillin tolerance protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Map position: 3
A;Introns: 60/1; 153/3; 233/3; 332/3; 402/3
A;Note: T9C5.120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cross-references: UNIPROT: Q9SCK6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51.4%;
70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 52.8
Best Local Similarity 80.0
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 70.0
Matches 7, Conservative
                           CASDIEKSTTT 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260 SELGSSYNTF 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :|||| | ||
AELGKETGTF 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SELGKSINIF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Residues: 1-469 <RIE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: A84947
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                               Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                    A; Accession: T46230
A; Status: preliminar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genetics:
                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
```

```
A;Cross-references: UNIPROT:P16757; EMBL:X17403; NID:g59591; PIDN:CAA35448.1; PID:g59620 A;Note: this sequence was submitted to the EMBL Data Library, December 1989 C;Superfamily: human cytomegalovirus hypothetical protein UL16 C;Keywords: glycoptcin; transmembrene protein File C;Keywords: glycoptcin; transmembrene protein G;Keywords: glycoptcin; File E;Leypothetical protein UL16 #status predicted <NAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the sequence of human cytomegalovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R.; Brown, C.M.; Cerny, R.; Horsnell,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein UL16 precursor - human cytomegalovirus (strain AD169) (Species: human cytomegalovirus, human herpesvirus 5 A;Note: host Homo sapiens (man) (Species: host Homo sapiens (man) (Species: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 09-Jul-2004 (Spacession: S09778 #squence_revision (Species: Nother, M.S.; Bankier, A.T.; Beck, S.; Bohni, R.; Brown, C.M.; Cerny, R.; How, Barrell, B.G. (Curr. Top. Microbiol: Immunol: 154, 125-169, 1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: S66768
A;Molecule type: DNA
A;Residues: 200-1294 <ALF>
A;Cross-references: EMBL:274817
A;Cross-references: EMBL:274817
A;Experimental source: strain S288C
A;Note: this sequence has been revised in reference S77690
A;Note: this was assumed to be the complete sequence of protein YOL075c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A Map position: 15L
A,Note: YOL075c
C,Superfamily: ATP-binding cassette homology
C,Superfamily: ATP-binding cassette homology
C,Superfamily: ATP-binding cassette homology <ABC1>
F,55-263/Domain: ATP-binding cassette homology <ABC1>
F,55-263/Rogion: nucleotide-binding motif A (P-loop)
F,537-392/Domain: transmembrane #status predicted <TM1>
F,469-485/Domain: transmembrane #status predicted <TM2>
F,469-512/Domain: transmembrane #status predicted <TM3>
F,606-622/Domain: ATP-binding cassette homology <ABC2>
F,710-916/Domain: ATP-binding cassette homology <ABC2>
F,727-734/Region: nucleotide-binding motif A (P-loop)
                                                                                                                                                                                    A, Accession: $77690
A, MoLecule type: DNA
A, Residues: 1-1294 AALE>
A, Cross-references: UNIPROT:Q08234; EMBL:Z74816; MIPS:YOL075c
A, Note: this is a revision to the sequence from reference $66756
A, Accession: $66767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 37; DB 2; Length 1294; Pred. No. 2.4e+02; 0; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: nucleic acid sequence not shown; translation not shown A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 1-179,'TTRTGVFLVVKRED' <ALW>
A;Cross-references: EMBL:274816
A;Experimental source: strain S288C
A;Note: this sequence has been revised in reference 877690
A;Note: this was assumed to be protein YOL074c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     predicted <TM6>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #status predicted <TM7>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F,1269-1285/Domain: transmembrane #status predicted <TM8>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: Analysis of the protein-coding content of the RA;Reference number: S09749; MUID:90269039; PMID:2161319 A;Accession: S09778
                                                                        R,Alexandraki, D.; Katsoulou, C.; Tzermia, M. submitted to the Protein Sequence Database, July 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F:1042-1058/Domain: transmembrane #status predicted F:1125-1141/Domain: transmembrane #status predicted F:1177-1193/Domain: transmembrane #status predicted
                                    877690; S66767; S66768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51.4%;
58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Cross-references: SGD: S0005435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGERLGIMTNTF 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASELGKSTNTF 12
                                                                                                                                                A; Reference number: S66756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
les 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Residues: 1-230 <CHE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
Matches .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,Map position: 1L
A,IMap position: 1L
A,IMtrons: 767/2; 834/3; 897/3; 959/1
A,IMtrons: 777/2; 834/3; 897/3; 959/1
C;Superfamily: yeast protein kinase C; protein kinase C zinc-binding repeat homology; pr
C;Keywords: ATP; duplication; phospholipid binding; phosphotransferase; serine/threonine
F;414-461/Domain: protein kinase C zinc-binding repeat homology <KZ1>
F;481-590/Domain: protein kinase C zinc-binding repeat homology <KZ2>
F;662-923/Domain: protein kinase homology <KZN>
F;670-678/Region: protein kinase ATP-binding motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A,Status: preliminary; translated from GB/EMBL/DDBJ
A,Molecule type: DNA
A,Residues: 1-114 <085.
A,Stesidues: 1-114 <085.
A,Stronces: UNIPROT:042632; EMBL:V15839; NID:92687848; PIDN:CAA75801.1; PID:9268
A,Experimental source: strain C2 (ATCC 48329)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ajintrons: 146/1; 234/1; 559/1; 952/2; 1019/3; 1155/1
C.Superfamily: yeast protein kinase C; protein kinase C zinc-binding repeat homology; pr
C;Keywords. ATP; phospholipid binding; phosphotransferase; serine/threonine-specific pro
F;459-506/Domain: protein kinase C zinc-binding repeat homology «KZNI»
F;527-576/Domain: protein kinase C zinc-binding repeat homology «KZNI»
                                                                                                                                                                                                                                                                Ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A.Title: PKC1, encoding a protein kinase C, and PAT1, encoding a fatty acid transporter A;Reference number: Z22303; MUID:98415124; PMID:9742699
A;Accession: T43051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       probable membrane protein YOL075c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein 01125; hypothetical protein 01130; hypothetical
C;Species: Saccharomyces cerevisiae
C;Date: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 16-Aug-2004
Bubmitted to the EMBL Data Library, February 1996

A, Reference number: 221750

A, Accession: T37866

A, Molecule type: DNA

A, Roberdues: 93-988 «DEV

A, Cross-references: BMBL: Z69795; PIDN: CAA93697.1; GSPDB: GN00066; SPDB: SPAC17G8.14c

R; Grishchuk, K.; McIntosh, J.R.; Devlin, K.; Churcher, C.; Barrell, B.G.; Rajandream, A, Reference number: Z21778

A, Reference number: Z21778
                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: DNA
A;Residues: 1-26,'AWTASTKNP',36-137 <GRI>
A;Cross-references: EMBL:Z69730; PIDN:CAA93602.1; GSPDB:GN00066; SPDB:SPAC22H10.01c
A;Experimental source: strain 972h-; cosmid c22H10
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein kinase C (EC 2.7.1.-) PKC1 - fungus (Cochliobolus heterostrophus) C; Species: Cochliobolus heterostrophus, Bipolaris maydis C;Date: 11-3na-2000 #sequence_revision 11-3na-2000 #text_change 09-Jul-2004 C; Accession: T43051 R;Oeser, B.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 37; DB 1; Length 988
Pred. No. 1.9e+02;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51.4%; Score 37; DB 2; Length 117 46.7%; Pred. No. 2.2e+02; ative 3; Mismatches 3; Indels
```

FEMS Microbiol. Lett. 165, 273-280, 1998

51.4%; 66.7%;

Ouery Match
Best Local Similarity 66...
6, Conservative

817 LGNTTSTFC 825

13

LGKSTNTFC

ઠે g CKEEMWYGSTTSTFC 1010

966

RESULT 14

1 CASEL--GKSTNTFC 13

à

7; Conservative

Sest Local Similarity

Matches

Query Match

A;Gene: pkcl

```
F;189-206/Domain: transmembrane #status predicted <TMM>
F;35,41,68,84,95,101,132,145/Binding site: carbohydrate (Asn) (covalent) #status predict
```

;35,41,68,84,95,101,132,145/Binding site: carbohydrate (Asn) (covalent) #status pr Query Match Best Local Similarity 57.1%; Score 36.5; DB 2; Length 230; Matches 8; Conservative 3; Mismatches 2; Indels 1; Gaps 1;

Search completed: April 1, 2005, 09:33:20 Job time: 20.8767 secs

1 CASELG-KSTNTFC 13 | | : | | | : | : | 25 CAVDLGSKSSNSTC 38

දු පු

THIS PAGE BLANK (USPTO)

Run

```
Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D., Altschul S.F., Zeberg B., Wagner L., Shemmen C.M., Schuler G.D., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Habeh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGD HUMAN
ID VEGD HUMAN
RESULT 1
  bacillus ce
bacillus ce
bacillus ce
bacillus an
bacillus th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bacillus li
rhodopirell
plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pneumocysti
cryptococcu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    plasmodium
photorhabdu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rana pipien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rana pipien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cryptococcu
brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             listeria in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oryza sativ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     crimean-con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pipien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   trypanosoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       listeria mo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  listeria mo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crimean-con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         crimean-con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 crimean-con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      paramecium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                      (without alignments)
83.628 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                              April 1, 2005, 03:33:32 ; Search time 79.6027 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0918v8

P22069

P22069

P22069

O967z1

O99944

O902b2

O902b2

O902b2

O902b2

O902b2

O902b2

O902b2

O902b2

O902b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2

O702b2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  043915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q6b835
Q6tfz7
Q6tfz8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q91ze4
P97946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1612378
                             GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGD_HUMAN
VEGD_RAT
C9012E4
VEGD RAT
C9012E4
VEGD WOUSE
C918VB
RN30_RANPI
C80721
C96721
C96721
C96721
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C60897
C6089
C6089
C6089
C6089
C6089
C6089
C608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                              protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q7RC90
Q7RT30
Q7N0R6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q84551
Q630E7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q72WY2
Q814I0
Q81138
Q6HAH9
Q7X816
Q6TQF5
Q6B835
Q6TFZ7
                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                  1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                US-09-761-636A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3394
6055
6055
33947
6055
6055
6055
8448
339445
339445
33945
8455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1086
                                                    Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55.55.9
55.59
55.69
55.69
55.69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
55.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                 ı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB
Maximum DB
                                                                                                                            OM protein
                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                   е
б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
                                                                                                                                                                                                                                                                                   Title:
```

```
ashbya goss
arabidopsis
  crimean-con
                                                   rana catesb
rana catesb
                                                                                                                                        arabidopsis
arabidopsis
                                                                                                                                                                                         arabidopsis
                                                                                                                                                                                                                        oryza sativ
                                                                                                                                                                                                                                                                                                                                  lactobacill
lactobacill
                                                                                                            caenorhabdi
                                                                                                                                                                                                                                                                                                  plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-UTL-2004 (Rel. 44, Last annotation update)
Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF).
Name=FIGF, Synonyms=VEGFD;
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Lung;

MEDLINE=98440120; PubMed=9479493; DOI=10.1006/geno.1997.5079;

MEDLINE=98440120; PubMed=9479493; DOI=10.1006/geno.1997.5079;

Roschigiani M., Lestingi M., Luddi A., Orlandini M., Franco B.,

Rossi E., Ballabio A., Zuffardi O., Oliviero S.;

"Human FIGF: Cloning, gene structure, and mapping to chromosome Xp22.1

between the PIGA and the GRPR genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Vascular endothelial growth factor D (VEGF-D) is a ligand for the tyrosine kinases VEGF receptor 2 (Flk1) and VEGF receptor 3 (Flt4)."; Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=98118549; PubMed=9435229; DOI=10.1073/pnas.95.2.548;
Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vitali A., Wilks A.F.,
Alitalo K., Stacker S.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yamada Y., Nezu J.-I., Shimane M., Hirata Y.; -
"Molecular cloning of a novel vascular endothelial growth factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Lung;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE-Lung;
MEDLINE-97349118; PubMed=9205122; DOI=10.1006/geno.1997.4774;
                         07yyh2
06euw8
09dfy7
09dfy7
09flds
081838
06z468
075e73
091iz3
                                                                                                                                                                                                                                                                                                                                                         09r499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                                                            CAEEL
Q6TQR6
Q7YYH2
Q6EUW8
Q9DFY7
                                                                                                      VNV5
CA
O9FHK1
O9FLD9
O8L838
O6Z468
Q75E73
Q9M133
Q9M133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genomics 42:483-488(1997)
                         621
128
128
451
471
677
738
749
768
11117
2182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0.0
      0
```

```
H.ThuyDB; HIXO116668; -..

R. H.ThuyDB; HIXO116668; -..

R. GO; 00005161; F. Piplatelet-derived growth factor receptor bin. . .; TAS.

R. GO; 00005161; F. F. Piplatelet-derived growth factor receptor bin. . .; TAS.

R. GO; GO:000524; P. Positive regulation of cell proliferation; TAS.

R. GO; GO:0008284; P. Positive regulation of cell proliferation; TAS.

R. InterPro; IPRO04153; CXCXC_repeat.

R. InterPro; IPRO04072; PD_growth_factor.

R. Ffam; PF03128; CXCXC; 3.

R. Ffam; PF03128; CXCXC; 3.

R. Frodom; P0001629; PD_growth_factor; 1.

R. SMART; SM00141; PDGF; 1.

DR. RROSITE; PS02249; PDGF 1; 1.
                                                                                                                                                                                                                                                                                                                           A Alitalo K., Achen M.G.;

A Alitalo K., Achen M.G.;

A Alitalo K., Achen M.G.;

The Biosynthesis of vascular endothelial growth factor-D involves

The proceolyric processing which generates non-covalent homodimers.";

L. J. Biol. Chem. 274:32127-33136 (1999).

I. Biol. Chem. 274:32127-33136 (1999).

I. FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis

and endothelial call growth, stimulating their proliferation and
migration and also has effects on the permeability of blood
vessels. May function in the formation of the venous and lymphatic
vascular systems during embryogenesis, and also in the maintenance
of differentiated lymphatic endothelium in adults. Binds and
activates VEGRR-2 (FIk1) and VEGRR-3 (FIt4) receptors.

C. ISUBNIT: Homodimer; non-covalent and antiparallel.

C. SUBNIT: HOCATION: Secreted.

ITESUE SPECIFICITY: Highly expressed in lung, heart, small
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@iable.ch).
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakeeley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             colon, and pancreas.

PTM: Undergoes a complex proteolytic maturation which generates a PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward vegRR-3 and vegRR-2. VegR-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed vegR-D is composed mostly of two VegR homology domains (VHDs)
                                                                                                                                                                                                                                       PROCESSING, AND SEQUENCE OF 89-94; 100-105 AND 206-213.
MEDLINE=20011413; PubMed=10542248; DOI=10.1074/jbc.274.45.32127; Stacker S.A., Stenvers K.L., Caesar C., Vitali A., Domagala T., Nice E.C., Roufail S., Simpson R.J., Moritz R., Karpanen T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
                                                                                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL, Y12865; CAA73371.1; JOINED.
EMBL, Y12866; CAA73371.1; JOINED.
EMBL, Y12867; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12869; CAA73371.1; JOINED.
EMBL, Y12870; CAA73371.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AJ000185; CAA03942.1; -. EMBL; BC027948; AAH27948.1; -. HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; D89630; BAA24264.1; -. EMBL; Y12863; CAA73370.1; -.
                                                                                                                                                                         cDNA sequences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y12864; CAA73371.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGNC:3708; FIGF
                                                                                                                                                                         and mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          +
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last amnotation update)
Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced
                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                       Gaps
                                                                                                                      4.
By similarity.
By similarity.
By similarity.
By similarity.
Interchain (By similarity).
Interchain (By similarity).
N-linked (GlcNAc. . ) (Potential).
N-linked (GlcNAc. . ) (Potential).
N-linked (GlcNAc. . ) (Potential).
W, 2048D769D735173E CRC64;
                                                Vascular endothelial growth factor D.
          Glycoprotein; Growth factor; Mitogen;
                                                                     4 X 16 AA repeats of C-X(10)-C-X-C-
                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                  Score 54; DB 1; Length 354; Pred. No. 0.18;
                                                                                                                                                                                                                                                      0; Indels
                                        (in a minor form).
Angiogenesis; Cleavage on pair of basic residues;
                                                                                         (approximate).
                                                                                                                                                                                                                                                      Mismatches
                              Potential.
         Direct protein sequencing, Glycop
Multigene family, Repeat, Signal
                                                                                                                                                                                                                                                     ;0
                                                                                                                                                                                                               40444 MW;
                                                                                                                                                                                                                                 75.0%; 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                        growth factor) (FIGF).
Name=Figf; Synonyms=Vegfd;
                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                            121 ASELGKSTNTF 131
                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                         2 ASELGKSTNTF 12
                                        88
205
354
318
                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus (Rat)
                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                              354 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10116;
                                                                                        222
258
277
277
301
1111
1142
1146
1146
1145
1145
287
                                                                                                                                                                                                                                   Local S. 11; C
                                                                                                                                                                                                                                                                                                                                 VEGD RAT
ID VEGD RAT
AC 035251;
                                                                                                                                                   DISULFID
DISULFID
DISULFID
                                                                                                                     REPEAT
DISULFID
                                                                                                                                                                                CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                   Query Match
                                                                                                                                          DISULFID
                                                                                                                                                                                                              SEQUENCE
                                                CHAIN
PROPEP
DOMAIN
                                                                                        REPEAT
REPEAT
                              SIGNAL
                                                                                                             REPEAT
                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                           RESULT 2
 g
```

ö

Gaps

;; 0

```
Mon Apr
```

```
WEDLINE=21276411; PubMed=11279005; DOI=10.1074/jbc.M100097200;

Baldwin M.E., Catimel B., Nice E.C., Roufail S., Hall N.E.,

Baldwin M.E., Catimel B., Nice E.C., Roufail S., Hall N.E.,

Baldwin M.E., Catkainen M.J., Alitalo K., Stacker S.A., Achen M.G.;

The specificity of receptor binding by vascular endothelial growth factor—d is different in mouse and man.";

J. Biol. Chem. 276:19166-19171(2001).

L. FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood wessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-3 (Flt4) receptor.

C.-- SUBGELLUIAR LOCATION: Secreted.

--- SUBGELLUIAR LOCATION: Secreted.

--- TISSUE SPECIFICITY: Highly expressed in fetal and adult lung.

--- IDBVELOPMENTAL STAGE: Expressed in a dynamic pattern in several
                                                                                                                                                                                                                                                                                                                                                               28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last sequence update)
Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF).
Name=Figf; Synonyms-Vegfd;
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=98288130; PubMed=9622638; DOI=10.1016/S0925-4773(98)00049-5; Avantaggiato V., Orlandini M., Acampora D., Oliviero S., Simeone A.; "Embryonic expression pattern of the murine figf gene, a growth factor belonging to platelet-derived growth factor/vascular endothelial growth factor family."; Mech. Dev. 73:221-224(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=C57BL/6J; TISSUE=Fibroblast;
MEDLINE=97030254; PubMed=6876195; DOL=10.1073/pnas.93.21.11675;
MCDindinii M., Marconcini L., Ferruzzi R., Oliviero S.;
"Identification of a c-fos-induced gene that is related to the platelet-derived growth factor/vascular endothelial growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Lung;
MEDLINE=97349118; PubMed=9205122; DOI=10.1006/geno.1997.4774;
Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial growth factor,
                                                                                                                 2; Length 326;
                                                                           D7CAEBA6C9FABB7D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. 93:11675-11680(1996)
                                                                                                               70.8%; Score 51; DB 2, 90.9%; Pred. No. 0.61;
                                                                                                                                                  1; Mismatches
                 PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS0278; PDGF_2; 1.
PROWLH factor; Mitogen.
SEQUENCE 326 AA; 37106 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genomics 42:483-488(1997).
                                                                                               Ouery Match
Best Local Similarity 90.9
These 10; Conservative
                                                                                                                                                                                                                ||||||:||||
126 ASELGKTINTF 136
                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                          12
 SMART; SM00141; PDGF; 1.
                                                                                                                                                                                            2 ASELGKSTNTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RECEPTOR SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEVELOPMENTAL STAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                             VEGD MOUSE
P97946;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEGF-D."
                                                                                                                                                                                                                                                                                       RESULT 4
VEGD_MOUSE
 DR DR DR SO SO
                                                                                                                                                                                              ò
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                 ö
entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                        4 (incomp....
By similarity.
By similarity.
By similarity.
Interchain (By similarity).
Interchain (By similarity).
Interchain (By similarity).
N-linked (GloNAc. .) (Potential).
N-linked (GloNAc. .) (Potential).
                                             EMBL; AF014827; AAB66557.1; -.

R RSP; P01127; 1PDG.

R RGD; 620659; Figf.

R InterPro; IPR00072; PD growth_factor.

R Pfam; PF00341; PDGF; 1.

R Probon; PD001629; PD growth_factor; 1.

R PROSITE; PS00249; PDGF_1; 1.

R PROSITE; PS00249; PDGF_1; 1.

R AAG10genesis; Cleavage on pair of basic residues; Glycoprotein; M Anglogenesis; Cleavage on pair of basic residues; Glycoprotein; M SIGNAL

SIGNAL

1 21 Potential.
                                                                                                                                                                                                                                                                                                           Vascular endothelial growth factor D.
                                                                                                                                                                                                                                                                                                                           Potential.
4 X 16 AA repeats of C-X(10)-C-X-C-X(1,3)-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70.8%; Score 51; DB 1; Length 326; 90.9%; Pred. No. 0.61; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                     (approximate)
                                                                                                                                                                                                                                                                                         Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProDom; PD001629; PD_growth_factor; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=Sprague-Dawley;
MEDLINE=21541129; PubMed=11683876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37112 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-DEC-2001 (TrEMBLrel. 19, 01-DEC-2001 (TrEMBLrel. 19, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 90.9
nes 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126 ASELGKTTNTF 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                       210
326
317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 292
326 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                       22
94
211
227
                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q912E4
Q912E4;
                                                                                                                                                                                                                                                                                                       CHAIN
PROPEP
DOMAIN
```

Matches

ò 셤 RESULT 3
091284
10 091284
10 091287
10 091289
10 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D
DT 01-D

REPEAT REPEAT

REPEAT

PROPEP

++

```
X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS).
MEDLINE=94166079; PubMed=8120892;
Mosimann S.C., Ardelt W., James M.N.G.;
Mosimann S.C., Ardelt W., James M.N.G.;
Mosimann S.C., Ar X-ray crystallographic structure of P-30 protein, an amphibian ribonuclease with anti-tumor activity.";
J. Mol. Biol. 236:1141-1153(1994).
-!- FUNCTION: Basic protein with antiproliferative/cytotoxic activity against several tumor cell lines in vitro, as well as antitumor in vivo. It exhibits a ribonuclease-like activity against high molecular weight ribosomal RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Embryo;
MEDLINE=29109111; PubMed=1985896;
Ardelt W., Mikulski S.M., Shogen K.;
Andelt W., Mikulski of an anti-tumor protein from Rana pipiens
"Amino acid sequence of an anti-tumor protein from Rana pipiens
cocytes and early embryos. Homology to pancreatic ribonucleases.";
J. Biol. Chem. 266:245-251(1991).
                                                                               Onconase variant rapLR1 precursor.
Mana pipiens (Northern leopard frog).
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Neobatrachia, Ranoidea, Ranidae, Rana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68.1%; Score 49; DB 2; Length 127; 69.2%; Pred. No. 0.56; 3; Indels ive 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B8511DC5407AB69B CRC64;
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-AUG-1991 (Rel. 19, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
25-JAN-2005 (Rel. 46, Last annotation update)
23-0 protein (EC 3.1.27.-) (Onconase).
Rana pipiens (Northern leopard frog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Endonuclease; Hydrolase; Nuclease; Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE 127 AA; 14491 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CKYKLKKSTNTFC 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 69.2
Matches 9, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8404;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RN30 RANPI
P22069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEOUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RN30 RANPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
  DDT THE READ TO THE PORT OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the buspean Bioinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                   acoustic ganglion, teeth, heart, anterior pitultary as well as lung and kidney mesenchyme, liver, derma, and periosteum of the vertebral column.

INDUCTION: By the transcription factor c-fos.

PTW: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward veckr.3 and VEGKR-2. VEGF-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDS) bound by non-covalent interactions (By similarity).

SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             By similarity.
By similarity.
By similarity.
Incerchain (By similarity).
Interchain (By similarity).
N-linked (GlonAc. . .) (Potential).
N-linked (GlonAc. . .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vascular endothelial growth factor D. Potential. 4 \times 16 \text{ AA} repeats of C-X(10)-C-X-C-X(1,3)-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00141; FUGF; 1.
PROSTIE; PS0549; PDGF 1; 1.
PROSTIE; PS50278; PDGF 2; 1.
Angiogenesis; Cleavage on pair of basic residues; Glycoprotein; Growth factor; Mitogen; Multigene family; Repeat; Signal.
structures and organs of the embryo such as limb buds,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 51; DB 1; Length 358;
Pred. No. 0.67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11nKed (GICNAC. . .) (PC
6636B17FBF07037C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGD; MGI:108037; Figf.
GO; GO:0005576; C:extracellular; IDA.
GO; GO:0005576; C:extracellular; IDA.
GO; GO:0005515; F:growth factor activity; IDA.
GO; GO:0005515; F:grotein binding; IPI.
GO; GO:0008283; P:cell proliferation; IDA.
InterPro; IPR004153; CXCXC_repeat.
InterPro; IPR000072; PD_growth_factor.
Pfam; PF03128; CXCXC; 2.
Pfam; PF03128; CXCXC; 2.
ProDom; PD001429; PD_growth_factor; 1.
ProDom; PD00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (approximate)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40908 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL, X99572; CA467892.1; -. EMBL; D89628; BAA14002.1; -. HSSP; PO1127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90.06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   278
2298
3323
323
1158
1150
1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22
94
211
227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
```

DOMAIN PROPER

CHAIN

REPEAT REPEAT REPEAT ¥

127

PRELIMINARY;

Q918V8 Q918V8;

RESULT 5 Q918V8 ID Q918'

Matches

ò 셤

ö

Gaps

; 0

```
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF01624; MutS'I; 1.
Pfam; PF05192; MutS'II; 1.
Pfam; PF00488; MutS'V; 1.
SMART; SM00534; MUTSac; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98 CKYKLKKSTNKFC 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 61.5.
Best Local 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       460 CGSKRGRTINTF 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 59.7
Best Local Similarity 58.3
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Trypanosoma brucei.
                                                        HSSP; P22069; 10NC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=MITat1.2;
PubMed=14651619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9P944
Q9P944;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q967Z1
Q967Z1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9P944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                096721
1D Q
                                                        OR TWENT TO BE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN THE SEEN T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DDT B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B B DD B DD B B DD B B DD B B DD B B DD B B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD B DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
SEQUENCE FROM N.A.

MEDILIBE-22836040; PubMed=12954760; DOI=10.1093/nar/gkg746;

Liao Y.D., Wang S.C., Leu Y.J., Wang C.F., Chang S.T., Hong Y.T.,

Pan Y.R., Chen C.;

"The structural integrity exerted by N-terminal pyroglutamate is
crucial for the cytotoxicity of frog ribonuclease from Rana pipiens.";

Nucleic Acids Res. 31:5247-5255 (2003).
                                                    -1- DEVELOPMENTAL STAGE: Early embryos (up to four blastomere stage). -1- SIMILARITY: Belongs to the pancreatic ribonuclease family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Neobatrachia, Ranoidea, Ranidae, Rana.
NCBI TaxID=8404;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [2]
SEQUENCE FROM N.A.
Liao Y.-D., WELLOW, S.-C.;
Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Belongs to the pancreatic ribonuclease family.
EMBL; AF332139; AAL54383.1; -.
PIR; A39035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 43; DB 1; Length 104;
Pred. No. 6.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11845 MW; 22A753C2F9E566B4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT; 127 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rana pipiens (Northern leopard frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002 (TrEMBLrel. 20, 01-MAR-2002 (TrEMBLrel. 20, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CKYKLKKSTNKFC 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Onconase precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAND
HELIX
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TURN
STRAND
HELIX
HELIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TURN
STRAND
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QBUVX5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TJRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OUNTER A SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVI
                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
| Trypanosoma
| Trypanosoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bell J.S., Harvey T.I., Sims A.M., McCulloch R.;
"Characterization of components of the mismatch repair machinery in
"Trypanosoma brucei.";
Mol. Microbiol. 51:159-173 (2004).
-!- SIMILARITY: Belongs to the DNA mismatch repair muts family.
ERBL; AF350880; AAK51796.1; -.
HSSP; QS6215; IEWQ.
                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
GO; GO:0004519; F:endonuclease activity; IEA.
GO; GO:0016787; F:hydrolase activity; IEA.
GO; GO:0016767; F:hucleic acid binding; IEA.
GO; GO:0004525; F:pancreatic acid binding; IEA.
Pfam; PF00074; RnaseA; 1.
ProDom; PD000535; RNaseA; 1.
PROSITE; PS00127; RNASE PANCREATIC; UNKNOWN 1.
PROSITE; PS00127; RNASE PANCREATIC; UNKNOWN 1.
FINGONICLEASE; Hydrolase; Nuclease; Signal.
SIGNAL SGOOT AA; 14469 WW; 953F90D351CFEEF3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                    2; Length 127;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59.7%; Score 43; DB 2; Length 997;
58.3%; Pred. No. 58;
ive 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                997 AA; 110416 MW; DBFDCA3D8D2642A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Putative mismatch repair protein MSH8.
                                                                                                                                                                                                                                                                                                                                                             59.7%; Score 43; DB 2
61.5%; Pred. No. 7.4;
iive 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT; 1011 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                997 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOST, WASTELLY ALTHOUGH OF TEA. GO; GO: 0005524; F: ATP binding; IEA. GO; GO: 0003684; F: ATP binding; IEA. GO; GO: 0006259; F: DNA metabolism; IEA. GO; GO: 0006259; P: MISMATCh repair; IEA. InterPro; IPR000432; MICS C. InterPro; IPR007696; MULS III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PS00486; DNA_MISMATCH_REPAIR_2; 1.
```

Mon Apr

DO THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERT

```
Name=PKC1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q6UB97
Q6UB97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q6UB97
            SOW REPORT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                      Eukaryota; Fungi; Ascomycota; Pneumocystidomycetes; Pneumocystidaceae; Pneumocystis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Fungi, Basidiomycota, Hymenomycetes, Heterobasidiomycetes,
Tremellomycetidae, Tremellales, Tremellaceae, Filobasidiella.
NCTI_TAXID=40410;
                                                                                                                                                                                                                                                                                            MEDLINE-20184731; PubMed=10721706; DOI=10.1016/S0378-1119(99)00533-8; MEDLINE-20184731; PubMed=10721706; DOI=10.1016/S0378-1119(99)00533-8; Lee L.H., Gigliotti F., Wright T.W., Simpson-Haidaris P.J., Weinberg G.A., Haidaris C.G.; "Molecular characterization of KEX1, a kexin-like protease in mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heung L.J., Loberto C., Plowden A., Hannun Y.A., Del Poeta M.;
"The Sphingolipid Pathway Regulates Pkc1 through the Formation of Diacylglycerol in Cryptococcus neoformans.";
J. Biol. Chem. 279:21144-2113(2004).

"HEL, ANY37359; AAQ84896.1; -.
HSSP; PO5132; IARM.
GO; GO:0005524; E.ARM.
GO; GO:0005524; F.ARP binding; IEA.
GO; GO:000574; F.PArcieni exine/threonine kinase activity; IEA.
GO; GO:0004774; F.protein exine/threonine kinase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1011 AA; 112020 MW; FBE472C8F65864E8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEROPS; S08.0,113.-
GO; GO:0008233; F:peptidase activity; IEA.
GO; GO:0004289; F:subtilase activity; IEA.
GO; GO:0004289; F:subtilase activity; IEA.
GO; GO:0006208; F:subtilase and peptidolysis; IEA.
InterPro; IPR008979; Gal bind like.
InterPro; IPR008979; Gal bind like.
InterPro; IPR006970; PryrctnconvertsP.
InterPro; IPR006970; PryrctnconvertsP.
Pfam; PF00083; Peptidase_S8; 1.
Pfam; PF0088; Pr; 4.
Pfam; PF0188; P. Broprotein; 1.
PRINTS; PR00723; SUBTILISIN.
PROSITE; PS00137; SUBTILISIN.
PROSITE; PS00137; SUBTILISIN.
PROSITE; PS00137; SUBTILASE_HIS; UNKNOWN_1.
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 42; DB 2;
Pred. No. 91;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed=15014071; DOI=10.1074/jbc.M312995200;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT; 1086 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cryptococcus neoformans var. neoformans.
                                                                                                                                                    Pneumocystis carinii f. sp. muris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gene 242:141-150(2000).
EMBL; AF093132; AAF32493.1; -.
HSSP; P13134; 10T5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               246 CAGEIVAAKNIFC 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CASELGKSTNTFC 13
                                                                                               Kexin-like protease KEX1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 53.8
les 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pneumocystis carinii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein kinase C 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=B3501;
                                                                                                                                                                                                                                           NCBI_TaxID=42066;
                                                                                                                              Name=kex1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=PKC1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q6UB96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
Q6UB96
```

ð g 

```
GO; GO:0016740; F:transferase activity; IEA.

GO; GO:0004469; P:intracellular signaling cascade; IEA.

GO:0004469; P:protein amino acid phosphorylation, IEA.

InterPro; IPR000209; C2.

InterPro; IPR0011009; Kinase_like.

InterPro; IPR011009; Kinase_like.

InterPro; IPR011009; Kinase_like.

InterPro; IPR001102; PKN effector.

InterPro; IPR001102; PKN effector.

InterPro; IPR001102; PKN effector.

InterPro; IPR001102; PKN effector.

InterPro; IPR001102; PKN effector.

InterPro; IPR001103; Ser thr_pkinase.

InterPro; IPR001103; Ser thr_pkinase.

InterPro; IPR001103; Ser thr_pkinase.

InterPro; IPR001103; Ser thr_pkinase.

InterPro; IPR001103; C2_1;

IPR001103; C2_1;

IPR001103; C2_1;

IPR001103; C2_1;

IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001103; IPR001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Fungi, Basidiomycota, Hymenomycetes, Heterobasidiomycetes,
Tremellomycetidae, Tremellales, Tremellaceae, Filobasidiella.
NCBI_TaxID=178876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-H99;
X PubMed=15014071; DOI=10.1074/jbc.M312995200;
A Heunun L.J., Luberto C., Plowden A., Hannun Y.A., Del Poeta M.;
A Heunun L.J., Luberto C., Plowden A., Hannun Y.A., Del Poeta M.;
H.The Sphingolipid Pathway Regulates Pkcl through the Formation of Diacylglycerol in Cryptococcus neoformans.";
J. Biol. Chem. 279:21144-21153 (2004).
J. Biol. Chem. 279:21144-21153 (2004).
R. BEMBL, AY373758, AAQ84895.1; -.
R RSSP, P05132; LAPM.
R GO; GO:0005522; C:intracellular; IEA.
R GO; GO:0005524; F:ATP binding; IEA.
R GO; GO:0004574; F:protein serine/threonine kinase activity; IEA.
R GO; GO:0004713; F:protein-tyrosine kinase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cryptococcus neoformans var. grubii (Filobasidiella neoformans var.
grubii).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58.3%; Score 42; DB 2; Length 1086; 53.3%; Pred. No. 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT; 1086 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004 (TrEMBLrel. 27, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | |: ||:|||
904 CKEEMWFGKTTSTFC 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CASEL--GKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
tes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein kinase C 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
```

;

ö

Gaps

ö

2; Length 316;

56.9%; Score 41; DB 66.7%; Pred. No. 44; 1; Mismatches

us-09-761-636a-5.open.rup

```
PROSITE; PS00027; HOMBOBOX 1; 1.
PROSITE; PS50071; HOMBOBOX 2; 1.
DNA-binding; Homeobox; Nuclear protein.
SEQUENCE 316 AA; 34409 MW; DC32955EA5430D8A CRC64;
                                                                                                                                                             Conservative
                                                                                                                                                                                             SMART; SM00389; HOX; 1
                                                                                                 Query Match
Best Local Similarity
8; Conserve
                                                                                                                                                                                                                                                                                                                                ACK2 LISIN
Q92CN9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                              RESULT 13
ACK2 LISIN
       SKRRR
                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                        ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECUENCE FROM N.A.
MEDLINE=22844360; PubMed=12963112; DOI=10.1016/S0925-4773(03)00135-7;
Rhinn M., Lun K., Amores A., Yan Y.L., Postlethwait J.H., Brand M.;
"Cloning, expression and relationship of zebrafish gbx1 and gbx2 genes
to Fgf signaling.",
Mech. Dev. 120:919-936(2003).
EMBL; AP288763; AAK83070.1; -..
EMBL; AP488763; ARK83070.1; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00109; C1; 2.
SMART; SM00109; C1; 2.
SMART; SM00139; C2; 1.
SMART; SM00139; C2; 1.
SMART; SM00139; STK X; 1.
SMART; SM00139; TK X; 1.
SMART; SM00139; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMOO19; TYRC; 1.
SMART; SMOO19; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
SMART; TYRC; 1.
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor activity; IEA.
transcription, DNA-dependent; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
2
GO; GO:0016740; F:transferase activity; IEA.
GO; GO:0007242; P:intracellular signaling cascade; IEA.
GO; GO:0006468; P:protein amino acid phosphorylation; IEA.
InterPro; IPR001009; C2.
InterPro; IPR011009; Kinase like.
InterPro; IPR011009; Kinase like.
InterPro; IPR011009; Pinase like.
InterPro; IPR00061; Pinase.
InterPro; IPR00061; Pinase.
InterPro; IPR00081; Ram repeat.
InterPro; IPR001245; Pinase.
InterPro; IPR001245; Tyr_pkinase.
InterPro; IPR001245; Tyr_pkinase.
InterPro; IPR001245; Tyr_pkinase.
Pfam; PF00110; C1_1; 2.
Pfam; PF001108; C1_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1086 AA; 120767 MW; 5700CFDF9E1D27BB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58.3%; Score 42; DB 2; 53.3%; Pred. No. 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003700; F:transcription fa
GO; GO:0006355; P:regulation of tr
Pfam; PF00046; Homeobox; I.
PRINTS; PR00024; HOMEOBOX.
ProDom; PD000010; Homeobox; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZFIN; ZDB-GENE-020117-2; gbx1
                                                                                                                                                                                                                                                                                                              Pfam; PF00069; Pkinase; 1.
Pfam; PF00433; Pkinase C; 1.
PRINTS; PR00008; DAGPEDOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 53.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               904 CKEEMWFGKTTSTFC 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CASEL--GKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Transcription factor Gbx1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q90ZB2
       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

C STRAIN=21537279; PubMed=11679669; DOI=10.1126/science.1063447;

MEDLINE=21537279; PubMed=11679669; DOI=10.1126/science.1063447;

Glaser P., Frangeul L., Buchtieser C., Rusniok C., Amend A.,

Baquero F., Berche P., Bloecker H., Brandt P., Chakraborty T.,

Charbit A., Chetouani F., Couve E., de Daruvar A., Dehoux P.,

Charbit A., Chetouani F., Couve E., de Daruvar A., Dehoux P.,

Bomann E., Dominguez-Bernal G., Duchaud E., Durant L., Dussurget O.,

Entian K.-D., Fshih H., Garcia-del Portillo F., Garrido P.,

A Gautier L., Goebel W., Gomez-Lopez N., Hain T., Hauf J., Jackson D.,

Jones L.-M., Kaerst U., Kreft J., Kuhn M., Kunst F., Kurapkat G.,

A Madueno E., Maltournam A., Mata Vicente J., Ng E., Nedjari H.,

Nordsiek G., Novella S., de Pablos B., Perez-Diaz J.-C., Purcell R.,

A Remmel B., Rose M., Schlueter T., Simoes N., Tierrez A.,

Varquez-Boland J.-A., Voss H., Wehland J., Cossart P.,

Comparative genomics of Listeria species.",

Science 294:849-852(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i - CATALYTIC ACTIVITY: ATP + acetate = ADP + acetyl phosphate.
-i - PATHWAX: Conversion of acetate to acetyl-CoA; first step.
-i - SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-i - SIMILARITY: Belongs to the acetokinase family.
                                                                                                                                                                                                                                                                                         Listeria innocua.
Bacteria; Firmicutes; Bacillales; Listeria.
CODI_TaxID=1642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIGRFAMS; TIGRO0016; ackA; 1.
PROSITE; PS01075; ACETATE KINASE 1; 1.
PROSITE; PS01076; ACETATE KINASE 2; 1.
COMPLETE PROTECOME; KINASE 2; 1.
SEQUENCE 397 AA; 43115 MW; 5822544EF92CBF51 CRC64;
                                                                                                                       28-FEB-2003 (Rel. 41, Last sequence update) 05-UUL-2004 (Rel. 44, Last annotation update) Acctate kinase 2 (EC 2.7.2.1) (Acetokinase 2) Name=ackA2; OrderedLocusNames=lin1132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HAMAP; MF_00020; -; 1.
InterPro; IPR000890; Acetate_kin.
InterPro; IPR004372; AckA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00871; Acetate kinase; 1. PRINTS; PR00471; ACETATEKNASE.
                                                                              28-FEB-2003 (Rel. 41, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AL596167; CAC96363.1; -.
STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P38502; 1G99.
ListiList; LIN01132; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; AC1574; AC1574.
```

Length 397;

DB 1;

Score 41;

56.98;

397 AA.

```
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIGREAMS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                Q720R2
                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best
                                  Q720R2
                                                               ò
                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                   Glaser P., Frangeul L., Buchrieser C., Rusnick C., Amend A.,
Baquero F., Berche P., Bloecker H., Brandt P., Chakraborty T.,
Charbit A., Cherourani F., Couve E., de Daruvar A., Dehoux P.,
Domann E., Dominquez-Bernal G., Duchaud B., Durant L., Dussurget O.,
Entian K.-D., Fsihi H., Garcia-del Portillo F., Garrido P.,
Gautier L., Goebel W., Gomez-Lopez N., Hain T., Hauf J., Jackson D.,
Jones L.-M., Kaerst U., Kreft J., Kuhn M., Kunst F., Kurapkat G.,
Madueno E., Maitournam A., Mata Wicente J., Ng E., Nedjari H.,
Nordsiek G., Novella S., de Pablos B., Perez-Diaz J.-C., Purcell R.,
Vazquez-Boland J.-A., Voss H., Wehland J., Cossart P.,
"Comparative genomics of Listeria species.";
                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                         STRAIN=EGD-e / Serovar 1/2a;
MEDLINE=21537279; PubMed=11679669; DOI=10.1126/science.1063447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- CATALYTIC ACTIVITY: ATP + acetate = ADP + acetyl phosphate.
-!- PATHWAY: Conversion of acetate to acetyl-CoA; first step.
-!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-!- SIMILARITY: Belongs to the acetokinase family.
                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     56.9%; Score 41; DB 1; Length 397; 72.7%; Pred. No. 55;
                   Indels
                                                                                                                                                                                                                                                     Listeria monocytogenes.
Bacteria, Firmicutes, Bacillales, Listeriaceae, Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIGRFAMS; TIGRO0016; ackA; 1.
PROSITE; PS01075; ACETATE KINASE 1; 1.
PROSITE; PS01076; ACETATE KINASE 2; 1.
COMPLETE PROTECTORE; KINASE 2; Transferase.
SEQUENCE 397 AA; 43132 MW; 6E295A59A5FD5C5B CRC64;
                                                                                                                                                                                                        05-JUL-2004 (Rel. 44, Last annotation update)
Acetate kinase 2 (EC 2.7.2.1) (Acetokinase 2)
                                                                                                                                                                                            (Rel. 41, Last sequence update) (Rel. 44, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72.7%; Pred. ...
    ed. No. 55;
Mismatches
    Pred. No.
                                                                                                                                                                                                                                      Name=ackA2; OrderedLocusNames=lmo1168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP, P38502; 1G99.
Listilist, LM001168; -.
Listilist, LM001168; -.
InterPro; IPR000890; Acetate kin.
InterPro; IPR000837; Acka.
Pfam; PF00871; Acetate kinase; 1.
PRINTS; PR00471; ACETATEKNASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AL591978; CAC99246.1; -. PIR; AH1220; AH1220.
                                                                                                                                                                             28-FEB-2003 (Rel. 41, Created)
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8; Conservative
                  Conservative
                                                                                                                                                  STANDARD;
                                                                           214 CAIEAGKSVNT 224
                                              CASELGKSTNT 11
   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                            NCBI_TaxID=1639;
                                                                                                                                                                                             28-FEB-2003
                                                                                                                                                  LISMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                              ð
                                                                      셤
```

214 CAIEAGKSVNT 224

1 CASELGKSTNT 11

8 6

```
When the sequence in the sequence is the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the sequence in the seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 41; DB 2; Length 397;
05-JUL-2004 (TrEMBLE). 27, Last sequence update)
05-JUL-2004 (TrEMBLE). 27, Last sequence update)
Propionate/acetate Kinase, Last annotation update)
Propionate/acetate Kinase, putative.
OrderedLocusNames=LW0f2365 1176;
Listeria monocytogenes (serotype 4b / strain F2365).
Bacteria; FirmLottes; Bacillales; Listeriaceae; Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43149 MW; CCD3F60C4BABF533 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 55;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS01075; ACETATE KINASE 1; 1. PROSITE; PS01076; ACETATE KINASE 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Complete proteome, Kinase, Transferase SEQUENCE 397 AA, 43149 MW, CCD3F60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: April 1, 2005, 09:25:55 Job time: 82.6027 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00871; Acetate kinase; 1. PRINTS; PR00471; ACETATEKNASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIGRO0016; ackA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 72.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214 CAIEAGKSVNT 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CASELGKSTNT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
```

Н

us-09-761-636a-5.open.rag

```
The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human begEff (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 49; Page 32; 102pp; English.
354
0
75
54
26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ¥&$8888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
VEGF base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human vas
Human tru
Human vil
Human VEG
Human NVB
Homo sapi
Human vas
Human vas
Human vas
Human vas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                        April 1, 2005, 03:27:37 ; Search time 98.1233 Seconds (without alignments) 51.240 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aau04527 Aau04552 Aau04552 Aau04552 Aau04552 Aau04535 Aau04535 Aau04535 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0452 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau0462 Aau046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Aaw53241
Aab10649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aau04524
                                                                                                                                                                                                                                                                                                                                                                           2105692
                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                     of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                      2105692 seqs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

    protein search, using sw model

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU04524
AAU04534
AAU04550
AAU04550
AAU04550
AAU04537
AAU04537
AAU04537
AAU04537
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04536
AAU04537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW53240
AAY97572
AAW44293
AAW49036
AAW53241
AAW53241
                                                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqp2001s:*
geneseqp2002s:*
geneseqp2003as:*
geneseqp2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Geneseq 16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqp1980s:*
geneseqp1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    geneseqp2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 geneseqp2004s:*
                                                                                                                                                                                                  US-09-761-636A-5
72
1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                             seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ایم
                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number
                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB 8
Maximum DB 8
                                                                                         OM protein
                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
No.
```

Aay70750 Human pre Aay70983 Human vas Aab220049 Human vBG Aab37606 Human vBG Aay97573 Human vBG Aay97573 Human vBG Aay97573 Human vBG Abg32046 Human vBG Abg32046 Human vBG Add08950 Human vBG Add08950 Human vBG Add08950 Human vBG Add20886 Human vBG Add1602 A human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31436 Human vBG Adx31439 Human vBG Adx31439 Human vBG Adx31439 Human vBG	ENTS		growth factor; angiogenesis; sis; psoriasis; tumour; lae; rheumatoid arthritis; ammation; cyclic.	s cyclises the peptide"			Cendron A;	used to interfere with angiogenesis, cyclizing a peptide loop fragment:tor protein by oxidizing the cysteine
AAY70750 AAB29049 AAB23069 AAB37606 AAB37606 AAB37666 AAB37661 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG32046 ABG	ALIGNMENTS AA.	:	ular endothelial growth fa on; lymphangiogenesis; psor neovascular sequelae; rheu tthy; chronic inflammation;	lifiers bond cyc			s, ce	e, u by fact
AAY77 AAB2 AAB3 AAB3 AAY9 ABG3 ABG3 ABG3 ADD0 ADD0 ADD0 AAW1 AAW1 AAW1	13	de 1	endothelial mphangiogen secular segu chronic inf	alif s bo	e e	SP. OP. RES.	ker	c peptide produced } growth f
<b>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</b>	de;	ıtry) peptide	endothe mphangi scular chronic	n/Qua "This	m	293 590	Stacker	×σ
33333333333333333333333333333333333333	peptide;	er ic	GF; vascular en arisation; lymp induced neovasc retinopathy; ch	Location/Qualifiers 113 /note= "This bond c	001WO-US0015	2000US-0176293P 2000US-0204590P G INST CANCER R	á·	monocyclic tesis, is p loop of a
000000000000000000000000000000000000000	ard;	(first nocycl	vascul sation; uced ne inopath;	346	001W	SUCCE SUCCE INST	1e8 18/4	n mo
27 27 27 27 27 27 27 27 27 27 27 27 27 2	standard;	(first	60 ⊃ ⊷	-bond	0	<u> </u>	Hughes R -442248/47	eric iogé osec
\$\\ 0.00000000000000000000000000000000000	04524	1524; 3P-2001 based	Human, VEGF, neovasculari diabetes ind diabetic ret Synthetic.	ulfide 001528	-JUL-2001. -JAN-2001;	18-JAN-2000; 2: 16-MAY-2000; 2: (LUDW-) LUDWIG	n MG, 2001	Novel monomeric monoc or lymphangiogenesis, from an exposed loop residues.
00000000000000000000000000000000000000	RESULT 1 AAU04524 ID AAU		XX KW Hum KW dia KW dia XX Syn		26	18 16 (E		

je

```
peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis,

CC neovascularisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC The condition is diabetic retinopathy, psoriasis, arthropathy, cc hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive of bromone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability cor brain. The peptides are used to in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic or with at least one biological activity induced by VEGF, VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a chick of the incompaniant of arthritis, psoriasis and contined arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "A disulfide bond forms between residue 17 and residue 17 of an identical peptide to form a dimeric peptide, or to residue 1 of the sequence appearing as AAU04528, also forming a dimeric peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human, VEGF; vascular endothelial growth factor; angiogenesis;
neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovascular sequelae; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 72; DB 4; Length 13; 100.0%; Pred. No. 2.8e-05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF based bicyclic dimeric peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAU04527 standard; protein; 17 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Achen MG, Hughes RA, Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU04527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
AAU04527
AAU04527
AAU04527
XX
AAU
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
XX
DT 26-6
X
               ò
```

```
The sequence represents a dimeric bicyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human confidence of vaccular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-confidence of regment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior confidence) are used to interfere with anglogenesis.

CC cyclisation are used to interfere with anglogenesis.

CC corpitation or lymphangiogenesis in a mammal with a condition characterised by anglogenesis, neovascularisation or lymphangiogenesis.

CC condition is diabetic retinopathy, periable, arthropathy, cerebrovascular accident, post-angloplasty restenosis, head, heat or cold crauma, substance:induced neovascularisation of the liver, excessive contamns, substance:induced neovascularisation of the liver, excessive contamns, substance:induced neovascularisation of the proteides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere contamination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and diabetic retirements.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                          Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 72; DB 4; Length 17; 100.0%; Pred. No. 3.7e-05; cive 0; Mismatches 0; Indels

    .13
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU04534 standard; peptide; 13 AA.
                                                                                                                                                     Claim 59; Page 32; 102pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGF based monocyclic peptide 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.
hes 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diabetic retinopathy
WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200152875~A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                             residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU0453
    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
```

```
The sequence represents a dimeric bicyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human USGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and peptide loop fragment from an exposed loop of a growth factor protein and cyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior co-cyclisation are used to interfere with angiogenesis,

The condition is diabetic retinopathy, psoriasis, arthropathy, newancerised by angiogenesis, neovascularisation or lymphangiogenesis, neovascularised by angiogenesis, neovascularisation or lymphangiopathy psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability or brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a contact of the sequelae of the sequel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                             /note= "A disulfide bond forms between residue 17 and residue 1 of the sequence appearing as AAU04528, forming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95.8%; Score 69; DB 4; Length 17; 92.3%; Pred. No. 0.00012; ive 1; Mismatches 0; Indels
                                        l. .13
/note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                            Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 26; Page 49; 102pp; English.
                Location/Qualifiers
                                                                                                                                       a dimeric peptide"
                                                                                                                                                                                                                                                                                                                                                                                                          Stacker S,
                                                                                                                                                                                                                                                                                                                                                                  (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                  18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                              18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 17 AA;
                                    Disulfide-bond
                                                                            Disulfide-bond
                                                                                                                                                                               WO200152875-A1
                                                                                                                                                                                                                        26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                            Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        residues.
à
                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                      Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                    sequence represents a monomeric monocyclic peptide of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 69; DB 4; Length 13; Pred. No. 9e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                         Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF based bicyclic dimeric peptide #7.
                                                                                                                                                                                                                                                                                                                           Example 25; Page 47; 102pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU04550 standard; peptide; 17 AA.
                                                                                                                                         Stacker S,
                                                                                                   (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95.8%;
                                      18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12; Conservative
                                                                                                                                         Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diabetic retinopathy
                                                                                                                                                                               WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04550;
                                                                                                                                                                                                                                                                                   residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
```

ö

Gaps

.. 0

AAU04546 standard; peptide; 17 AA.

RESULT 5 AAU04546 a

셤

Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.

Matches

8 셤 Synthetic

```
WO200152875-A1
```

```
26-SEP-2001
                                                                                                                                                                                                                                                                                                                                             AAU04535;
                                                                                                                                                                                                                                       RESULT 6
                                                                                                                                                                                                                                                                     AAU04535
                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "A disulfide bond forms between residue 17 and residue 17 of an identical peptide to form a dimeric
                                                                                                                                                 Human, VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis;

    13
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                  diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                VEGF based bicyclic dimeric peptide #3
                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            peptide"
                                                                                                                                                                                                                                                                                                                                                                Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                 Disulfide-bond
                                                                                                                                                                                                                                                                                     Synthetic
AAU04546;
```

18-JAN-2001; 2001WO-US001533. 26-JUL-2001

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

(LUDW-) LUDWIG INST CANCER RES

Cendron A; Stacker S, Achen MG, Hughes RA,

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues

Example 26; Page 49; 102pp; English

to cyclisation are used to interfere with angiogenesis,
covacularisation or lymphangiogenesis in a mammal with a condition
characterised by angiogenesis, neovascularisation or lymphangiogenesis,
neovascularisation or lymphangiogenesis in a mammal with a condition
characterised by angiogenesis, neovascularisation or lymphangiogenesis.
The condition is diabetic retinopathy, boxiasis, arthropathy,
cerebrovascular accident, post-angioplasty restenosis, head, heat or cold
trauma, substance-induced neovascularisation of the liver, excessive
hormone-related angiogenic dysfunction, diabetes induced neovascular
sequelee, hypertension induced neovascular sequelee, or chronic liver
infection. The peptides are also used to modulate vascular permeability
in a mammal (the mammal has a condition characterised by fluid
accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura,
or brain. The peptides are used to image blood vessels and lymphatic
vasculature. The monomeric and bicyclic peptides are used to interfere
with at least one biological activity induced by VEGF, VEGF, or -D and
are also used in combination with an anti-inflammatory agent, to treat a whose 3-dimensional structure is modelled on the expose loop of human VEGFD (vascular endothellal growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior The sequence represents a dimeric bicyclic peptide of the invention, diabetic retinopathy

Sequence 17 AA;

```
ö
                     Gaps
                     ö
                                                                                                                                                       growth factor; angiogenesis;
                                                                                                                                                               neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
      Length 17;
                     0; Indels

    .13
/note= "This bond cyclises the peptide"

    Score 69; DB 4; I
Pred. No. 0.00012;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                Cendron A;
                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                Stacker S,
95.8%; bc.
92.3%; Pred
1; N
                                                                                          AAU04535 standard; peptide; 13 AA.
                                                                                                                                                       Human; VEGF; vascular endothelial
                                                                                                                                        VEGF based monocyclic peptide 13.
                                                                                                                                                                                                                                                                                                                (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                          18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                         18-JAN-2000; 2000US-0176293P.
                                                                                                                        (first entry)
                                    1 CASELGKSTNTFC 13
                                                  1 CATELGKSTNTFC 13
                     Conservative
                                                                                                                                                                                                                                                                                                                               Achen MG, Hughes RA,
  Query Match
Best Local Similarity
Marches 12; Conserv
                                                                                                                                                                                                                    Disulfide-bond
                                                                                                                                                                                                                                            WO200152875-A1
                                                                                                                                                                                                                                                           26-JUL-2001,
                                                                                                                                                                                              Synthetic
```

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues.

WPI; 2001-442248/47.

Example 25; Page 47; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CVGFD (vascular endothalial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptides by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides, dimeric bicyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, concaterised by angiogenesis, neovascularisation or lymphanajogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, carbonary and condition is diabetic retinopathy, psoriasis, arthropathy, construction of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition of the condition cold cerebrovascular accident, post-angioplasty restenosis, head, heat or coltrauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human vEGPD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, necovation or lymphangiogenesis in a mammal with a condition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                      -D and
treat a
accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF. VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat chronic inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                  .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neovascularisation, lymphangiogenesis, psoriasis, tumour, diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy, chronic inflammation, cyclic.
                                                                                                                                                                            Score 65; DB 4; Length 13;
Pred. No. 0.00043;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 25; Page 47; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                              Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF based monocyclic peptide 15.
                                                                                                                                                                                                                                                                                                                                                                          AAU04537 standard; peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Stacker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JAN-2001; 2001WO-US001533
                                                                                                                                                                               90.3%;
                                                                                                                                                                                              84.68;
                                                                                                                                                                                                                                                 1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                         CASELGKTSNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                26-SEP-2001 (first entry
                                                                                                                                                                                                                  11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hughes RA,
                                                                                                            diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-442248/47.
                                                                                                                                                                                                Best Local Similarity
                                                                                                                                             Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                               AAU04537;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           residues
                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                           RESULT 7
                                                                                                                                                                                                                                                                                                                                                          88888888888888
                                                                                                                                                                                                                                                                                    윰
                                                                                                                                                                                                                                                     ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                     hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biblogical activity induced by VEGF. Or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and
characterised by angiogenesis, neovascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangiona, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cotrauma, substance-induced neovascularisation of the liver, excessive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "A disulfide bond forms between residue 17 and residue 17 of an identical peptide to form a dimeric peptide"
                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; VEGF; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                         90.3%; Score 65; DB 4; Length 13; 84.6%; Pred. No. 0.00043; ive 2; Mismatches 0; Indels

    .13
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF based bicyclic dimeric peptide #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU04547 standard; peptide; 17 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                CASELGRSTNSFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hughes RA,
                                                                                                                                                                                                                                                                     diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                        Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                          11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Achen MG,
                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         residues
                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU04547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
     0
                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

us-09-761-636a-5.open.rag

```
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAU04549
 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                   The sequence represents a dimeric bicyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human CC Widfold (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betacter carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, concavascularisation or lymphangiogenesis, neovascularisation of the liver, excessive cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive corresponded by pertension induced neovascular sequelae, nypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular correction in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are also used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF, Cor-D and chronic inflammation in peripheral limbs or in limbs or correction of the least one biological activity induced by VEGF, VEGF, Cor-D and chronic inflammation in peripheral limbs or interfere with at least one biological activity induced by VEGF, very energy of the correction of the limbs of the limbs of the limbs of the limbs of the limbs of the limbs of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _note= "A disulfide bond forms between residue 17 and residue 1 of the sequence appearing as AAU04528, forming a dimeric peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, VEGF, vascular endothelial growth factor; angiogenesis;
neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovascular sequelae; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 65; DB 4; Length 17;
Pred. No. 0.00058;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diabetic retinopathy; chronic inflammation; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF based bicyclic dimeric peptide #8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
Example 26; Page 49; 102pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04551 standard; peptide; 17 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90.3%;
84.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JAN-2000; 2000US-0176293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 84.6'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CASELGKTSNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                           diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200152875-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU04551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
ò
```

```
The sequence represents a dimeric bicyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human, vegFD (vascular endothelial growth factor). The invention relates to a method of producing a monometric monocyclic peptide by a measuring beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior peptides) and a cyclic peptide with a least one amino acid deleted prior corditation are used to interfere with angiogenesis, concarterisation or lymphangiogenesis, neconsition is diabetic retinopathy, psoriasis, arthropathy, neconsition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, head, heat or chramms, substance-induced neovascularisation of the liver, excessive cordition. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic cor brain. The peptides are used to image blood vessels and lymphatic cor are also used in combination with an anti-inflammatory agent, to treat a second and objective inflammatory agent, to treat a
                                                                                                                                                                                                                                                           Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammation, especially rheumatoid arthritis, psoriasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence represents a dimeric bicyclic peptide of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90.3%; Score 65; DB 4; Length 17;
84.6%; Pred. No. 0.00058;
iive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diabetic retinopathy; chronic inflammation; cyclic.
                                                                                     Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF based bicyclic dimeric peptide #6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 26; Page 49; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                     Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU04549 standard; peptide; 17 AA.
(LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGRSTNSFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11; Conservative
                                                                                     Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diabetic retinopathy
                                                                                                                                                                      WPI; 2001-442248/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                     Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04549;
                                                                                                                                                                                                                                                                                                                                                                                              residues
```

ö

```
Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                /note= "A disulfide bond forms between residue 17 and residue 17 of an identical peptide to form a dimeric
/note= "This bond cyclises the peptide"
                                                                                                                                                                                                                                   Example 26; Page 49; 102pp; English
                                                                                                                                                    Achen MG, Hughes RA, Stacker S,
                                                                                                                                  (LUDW-) LUDWIG INST CANCER RES
                                                                                                        18-JAN-2000; 2000US-0176293P.
                                                                                                                16-MAY-2000; 2000US-0204590P.
                                                                                      18-JAN-2001; 2001WO-US001533.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diabetic retinopathy
                                                                                                                                                                     WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 17 AA;
         Disulfide-bond
                                                    WO200152875-A1
                                                                     26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11;
                                                                                                                                                                                                                  residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
```

```
The sequence represents a dimeric bicyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human whose 3-dimensional structure is modelled on the expose loop of human created to a growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betabet acrbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior corpitation are used to interfere with angiogenesis, convention is diabeted to retinopathy, soriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold craumangioma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in pertipheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation with an anti-inflammatory agent, to treat a chronic inflammation with an enti-inflammatory agent, to treat a condition in peripheral activity induced by VEGF, VEGF-C or D and the peripheral activity induced by VEGF, VEGF-C or D and contour and account account of the condition with an anti-inflammatory agent, to treat and co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90.3%;
84.6%;
```

```
ö
                           Gaps
                           ;
0
Score 65; DB 4; Lengtn 17;
Pred. No. 0.00058;
                         ;
                                            1 CASELGKSTNTFC 13
                          Conservative
```

AAU04536 standard; peptide; 13 RESULT 11 AAU04536 ID AAU0 XX AC AAU0

AAU04536;

\$

||||||||:|||:|| CASELGRSTNSFC 13

셤

(first entry)

VEGF based monocyclic peptide 14.

growth factor; angiogenesis; neovascularisation, lymphangiogenešis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation; cyclic. Human; VEGF; vascular endothelial

Synthetic.

Location/Qualifiers Disulfide-bond

/note= "This bond cyclises the peptide"

WO200152875-A1

26-JUL-2001.

Cendron A;

18-JAN-2001; 2001WO-US001533. 

18-JAN-2000; 2000US-0176293P. 16-MAY-2000; 2000US-0204590P.

(LUDW-) LUDWIG INST CANCER RES

Cendron A; Stacker S, Achen MG, Hughes RA,

WPI; 2001-442248/47.

Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine residues

Example 25; Page 47; 102pp; English.

The sequence represents a monomeric monocyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human CV WebpP (vascular endothelial growth factor). The invention relates to a method of producing a monomeric monocyclic peptide by a measuring betaction distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cyclic peptides. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior cyclisation are used to interfere with angiogenesis.

CC cyclisation are used to interfere with angiogenesis.

CC cyclisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC cyclisation or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovascularisation or lymphangiogenesis.

CC crondition is diabetic retinopathy, psoriasis, arthropathy, cerebrovascular accident, post-angioplasty restenosis, head, heat or cold cramma, substance-induced neovascularisation of the liver, excessive corporation. The peptides are also used to modulate vascular permeability corporation in peripheral limbs or in lungs, peritoneal cavity, pleura, accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, carcumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, are also used in combination with an unit-inflammatory agent, to treat a corporation inflammation, which an anti-inflammatory agent, to treat a corporation inflammation with an anti-inflammatory agent, to treat a corporation inflammation with an anti-inflammatory agent, to treat a corporation in the peptides are used to indepted are also used in combination with an anti-inflammatory agent, to treat a corporation in peripherally theumatoid arthritis, psoriasis and diabetic retinopathy

Sequence 13 AA;

; 0 84.7%; Score 61; DB 4; Length 13; 76.9%; Pred. No. 0.0021; ive 3; Mismatches 0; Indels Local Similarity 76.9 nes 10; Conservative Ouery Match Best Loc Matches

ö

Gaps

1 CASELGKSTNTFC 13 : :

ò

-D and

with at least one biological activity induced by VEGP, VEGP-C or -D are also used in combination with an anti-inflammatory agent, to treachronic inflammation, especially rheumatoid arthritis, psoriasis and

diabetic retinopathy

Sequence 17 AA;

ω

ö

Gaps

. 0

84.7%; Score 61; DB 4; Length 17; 76.9%; Pred. No. 0.0028; ive 3; Mismatches 0; Indels

1 CASELGKSTNTFC 13 |||::||||||: CASDVGKSTNTWC 13

10; Conservative

Similarity

Local

```
Query Match
                                                                                  Matches
 886666
                                                                                                                      g
                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                 Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                       /note= "A disulfide bond forms between residue 17 and
                                                                                                                                                                                                                                residue 17 of an identical peptide to form a dimeric peptide"
                                                                                                                      Human; VEGF; vascular endothelial growth factor; angiogenesis;
                                                                                                                             neovascularisation, lymphangiogenesis, psoriasis, tumour, diabetes induced neovascular sequelae, rheumatoid arthritis, diabetic retinopathy, chronic inflammation, cyclic.

    .13
/note= "This bond cyclises the peptide"

                                                                                                                                                                                                                                                                                                                                                              Cendron A;
                                                                                                   VEGF based bicyclic dimeric peptide #5
                                                                                                                                                                                    Location/Qualifiers
                                              Ą.
                                                                                                                                                                                                                                                                                                                                                               Stacker S,
                                            AAU04548 standard; peptide; 17
                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                 18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                18-JAN-2001; 2001WO-US001533.
                                                                                (first entry)
CASDVGKSTNTWC 13
                                                                                                                                                                                                                                                                                                                                                              Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-442248/47,
                                                                                                                                                                                            Disulfide-bond
                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                                                            WO200152875-A1
                                                                                26-SEP-2001
                                                                                                                                                                                                                                                                             26-JUL-2001
                                                                                                                                                                  Synthetic.
                                                              AAU04548;
```

```
The sequence represents Human VEGF-D (vascular endothelial growth factor) amino acids Val101-Thr 173, used together with the C-terminal 23 residues of VGGF to make a hybrid theoretical molecule for 3 dimensional modelling. The sequence is used in a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with anglogenesis, neovascularisation or lymphanglogenesis in a mammal with a condition characterised by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    angiogenesis, neovascularisation or lymphangiogenesis. The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel monomeric monocyclic peptide, used to interfere with angiogenesis,
                                                                                                                                                                                    Human; VEGF-D; vascular endothelial growth factor; angiogenesis; neovascularisation; lymphangiogenesis; psoriasis; tumour; diabetes induced neovascular sequelae; rheumatoid arthritis; diabetic retinopathy; chronic inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cendron A;
                                                                                                                                                Human VEGF-D amino acids Val101-Thr 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Page 90-91; 102pp; English.
                    AAU04522 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (LUDW-) LUDWIG INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                             18-JAN-2001; 2001WO-US001533.
                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                           WO200152875-A1.
                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                     26-JUL-2001.
                                                                                                      26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Achen MG,
                                                              AAU04522;
AAU04522
```

to cyclisation are used to interfere with angiogenesis, concurrent process. The concurrent station or lymphangiogenesis in a mammal with a condition characterised by angiogenesis, neovacularisation or lymphangiogenesis.

The condition is diabetic retinopathy, psoriasis, arthropathy, hemangioma, vascularised malignant or benign tumour, post-recovery cerebrovascular accident, post-angioplasty restenosis, head, heat or cold trauma, substance-induced neovascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced neovascular sequelae, hypertension induced neovascular sequelae, or chronic liver infection. The peptides are also used to emodilate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic peptides are used to interfere

cold

The sequence represents a dimeric bicyclic peptide of the invention, whose 3-dimensional structure is modelled on the expose loop of human VBGFD (vascular endothelial growth factor). The invention relates to a method of producing a monomeric moncoyclic peptide by a measuring betabeta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric bicyclic peptides (comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior

Example 26; Page 49; 102pp; English

residues.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The sequence represents Human VEGF-D (vascular endothelial growth factor) amino acids Val101-PRO186. The sequence is used in a method of producing a monomeric monocyclic peptide by a measuring beta-beta carbon separation distances on opposite antiparallel strands of a peptide loop fragment from an exposed loop of a growth factor protein and cyclising the peptide by oxidising the cysteine residues. The monocyclic peptides, dimeric peptide s(comprising 2 linked monocyclic peptides) and a cyclic peptide with at least one amino acid deleted prior to cyclisation are used to interfere with angiogenesis, neovascularisation or lymphangiogenesis in a mammal with a condition characterised by
neovascular sequelae, or chronic liver infection. The peptides are also used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lymphatic vasculature. The monomeric and bicyclic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel monomeric monocyclic peptide, used to interfere with angiogenesis, or lymphangiogenesis, is produced by cyclizing a peptide loop fragment from an exposed loop of a growth factor protein by oxidizing the cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           anglogenesis, neovascularisation or lymphanglogenesis. The condition is
diabetic retinopathy, psoriasis, arthropathy, hemangloma, vascularised
malignant or benign tumour, post-recovery cerebrovascular accident, post-
                                                                                                                                                                                 peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatory agent, to treat a chronic inflammation, especially rheumatoid arthritis, psoriasis and diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; VEGF-D; vascular endothelial growth factor; angiogenesis;
neovascularisation; lymphangiogenesis; psoriasis; tumour;
diabetes induced neovacular sequelae; rheumatoid arthritis;
diabetic retinopathy; chronic inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                            75.0%; Score 54; DB 4; Length 73; 100.0%; Pred. No. 0.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cendron A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human VEGF-D amino acids Val101-PR0186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1; Page 89; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU04520 standard; protein; 96 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stacker S,
                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Pre-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JAN-2000; 2000US-0176293P.
16-MAY-2000; 2000US-0204590P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JAN-2001; 2001WO-US001533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Achen MG, Hughes RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 ASELGKSTNTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21 ASELGKSTNTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-442248/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 11, Conser
                                                                                                                                                                                                                                                                                                                                                           Sequence 73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MO200152875-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU04520;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 residues.
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU04520
LID AAU0
XX
AAU0
XX
XX
XX
KW Huma
KW Giak
KW Giak
KW Giak
XX
KW Homo
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW Huma
LE-1
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
KW WPI
XX
CC a min
CC a min
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m
CC dis m

       8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
ö
angioplasty restenosis, head, heat or cold trauma, substance-induced necoascularisation of the liver, excessive hormone-related angiogenic dysfunction, diabetes induced necoascular sequelae, hypertension induced necoascular sequelae, pretrension induced used to modulate vascular permeability in a mammal (the mammal has a condition characterised by fluid accumulation in peripheral limbs or in lungs, peritoneal cavity, pleura, or brain. The peptides are used to image blood vessels and lympheric vasculature. The monomeric and bicyclic peptides are used to interfere with at least one biological activity induced by VEGF, VEGF-C or -D and are also used in combination with an anti-inflammatchy agent, to treat a chronic inflammation, especially rheumatchid arthritis, psoriasis and diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents human vascular endothelial growth factor (VEGF)-D. The specification describes a human cell line which stably actpresses averge-b. or fragments/analogues having VEGF-D biological activity. VEGF-D antagonists, e.g. antisense nucleic acids or triplex DNA, VEGF-D variants or antibodies (especially chimeric antibodies), are useful for the treatment or alleviation of malignant melanomas, tumours or psoriasis. Angiogenesis and lymphangiogenesis stimulating amounts of VEGF-D can be administered to enhance the acceptance and/or healing of skin grafts or to stimulate the healing of a surgical or traumatic wound to the skin. Lymphangiogenesis stimulating amounts of VEGF-D can be used to treat lymphedema. Endothelial proliferation stimulating amounts of VEGF-D are used to treat scleroderma. Vascularisation stimulating amounts of VEGF-D can be used to treat scleroderma. Vascularisation stimulating amounts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A human cell line stably expressing vascular endothelial growth factor D, useful for treating melanomas or tumors expressing VEGF-D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vascular endothelial growth factor; VEGF; VEGF-D; malignant melanoma;
tumour; psoriasis; angiogenesis; lymphangiogenesis; skin graft;
wound healing; lymphedema; scleroderma; anhydrotic ectodermal dysplasia.
                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                    75.0%; Score 54; DB 4; Length 96; 100.0%; Pred. No. 0.27; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human vascular endothelial growth factor (VEGF)-D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY23889 standard; protein; 109 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alitalo K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 6; Page 72; 79pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97AU-00001131.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0087392P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US027373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                              11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                           31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stacker SA,
                                                                                                                                                                                                                                                                                                                                                                                                                                21 ASELGKSTNTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-405368/34.
                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                Sequence 96 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-DEC-1997;
29-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9933485-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Achen MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY23889;
                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                             Best Local
                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY23889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

us-09-761-636a-5.open.rag

```
ö
antibodies are useful for detecting tumours expressing VEGF-D. Fully-processed VEGF-D can be used to stimulate at least one VEGF-D bioactivity chosen from endothelial cell proliferation, migration, survival and differentiation and lymphangiogenesis without inducing vascular permeability
                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                     Query Match 75.0%; Score 54; DB 2; Length 109; Best Local Similarity 100.0%; Pred. No. 0.3; Matches 11; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                               2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                    29 ASELGKSTNTF 39
                                                                                                                                  Sequence 109 AA;
                 88888888
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                          엄
```

Search completed: April 1, 2005, 09:18:15 Job time : 100.123 secs

Sequence 1, Appli Sequence 3, Appli Sequence 1, Appli Sequence 1, Appli Sequence 10, Appl

Sequence 8, Appli Sequence 1, Appli

```
; Search time 319.479 Seconds
(without alignments)
13.493 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published Applications AA:

(cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*

(cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*

(cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                 1413372
                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                           1413372 segs, 331592847 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published_Applications_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                      - protein search, using sw model
                                                                                                                       April 1, 2005, 09:26:18
                                                                                                                                                                                                                                                                                       Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                  1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                 seq length: 0
seq length: 200000000
                                                                                                                                                                                              US-09-761-636A-5
72
                                                                                                                                                                                                                                                                      BLOSUM62
                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                                      OM protein
                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                         Run on:
```

Sequence 3, Appli Sequence 3, Appli Sequence 1, Appli Sequence 11, Appl Sequence 11, Appl Sequence 6, Appli Sequence 22, Appli Sequence 5, Appli Sequence 5, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 18, Appli Sequence 18, Appli Sequence 18, Appli Sequence 18, Appli

Sequence 4, 1 Sequence 9, 1 Sequence 9, 1

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	1	Appli	Appli	Appl	Appl	Appl	Appl	Appl	Appl	Appl	App1	Appl	Appl	Appli
	£	5,	8	15,	27,	31,	16,	18,	28,	30,	32,	17,	29,	a,
	tio	9	Ge	e	ç	e	e	e	Ge	e	e	e	Ge	e
	Description	Sequence	sequence	Sequence	sequence	sequence	Sequence	Sequence	sequence	sequence	sequence	sequence	Sequence	sequence
	Ď		0,	0,	U,	O,	0,	0,1	0,	0,1	0,	0,	0,	0,
		'n	ھ	-15	-27	-31	-16	US-09-761-636A-18	-28	99	-32	-11	-29	ب ص
	ì	36A	36A	36A	36A	36A	36A	36A	36A	36A	36A	36A	36A	36A
		1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6
		-76	-76	-76	-76	-76	-76	-76	-76	-76	-76	-76	-76	-76
		US-09-761-636A-5	JS-09-761-636A-8	3-09	3-09	3-09	9-09	3-09	3-09	3-09	US-09-761-636A-32	JS-09-761-636A-17	JS-09-761-636A-29	JS-09-761-636A-3
	a	ä	š	ä	ñ	ă	S	ä	ö	ñ	ğ	S	ö	ñ
	BB	٥	0	9	σ	0	0	6	6	Φ	9	σ	0	σ
	Query Match Length DB	13	17	13	17	17	13	13	17	17	17	13	17	73
	ਨੂੰ ਦ	٥.	0.	æ	œ.	8	'n.	'n	m.	ų.	'n	۲.	۲.	0.
φo	Mat	100	100	95	95	95	90	90.3	90	90	90	84	84	75
	Score	72	72	69	69	69	65	65	65	65	65	61	61	54
	Result No.	-	7	e	4	ß	9	7	æ	6	10	11	12	13

RESULT 2 US-09-761-636A-8

		0;	
		Gaps	
	TOR	0	
ALIGNMENTS	RESULT 1 US-09-761-636A-5 US-09-761-636A-5 Patent No. US20020065218A1 Patent No. US20020065218A1 GENERAL INFORMATION: APPLICANT: ACTEN, Marc APPLICANT: STACKER, Steven APPLICANT: CENDRON, Angela TITLE OF INVENTION: VGFF-D/VGFF-C/VGF PEPTIDOMIMETIC INHIBITOR FILE REFERENCE: 1064/48505 Achen et al CURRENT APPLICATION NUMBER: US/09/761,636A CURRENT APPLICATION NUMBER: US 60/204,590 PRIOR FILING DATE: 2000-01-18 PRIOR APPLICATION NUMBER: US 60/204,590 PRIOR FILING DATE: 2000-05-16 NUMBER OF SEQ ID NOS: 34 SOFTWARE: PATENTIN VERSION 3.0 SEQ ID NO 5 LENGTH: 13 TYPE: PRI TYPE: PRI CORGANISM: Homo sapiens US-09-761-636A-5	Query Match 100.0%; Score 72; DB 9; Length 13; Best Local Similarity 100.0%; Pred. No. 9.8e-06; Matches 13; Conservative 0; Mismatches 0; Indels	1 CASELGKSTNTFC 13                   1 CASELGKSTNTFC 13
	RESULT 1 US-09-76 Sequen: Sequen: GENERAL APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI APPLI	Query Best ] Match	දු දු

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: GYACKER, Steven
APPLICANT: GYACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/1761,636A
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VEFFION 3.0
SEQ ID NOS: 34
SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                            APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION UNMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
FRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-01-18
SOFTWARE: PALCATION NUMBER: US 60/204,590
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PALCHIN VERSION 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 16, Application US/09761636A
Patent No. US20020065218A1
Patent No. US20020065218A1
APPLICANT: ACHEN, Marc
APPLICANT: HUGHES, Richard
APPLICANT: HUGHES, Richard
APPLICANT: CANDRON, Angela
TITLE OF INVENTION: VGGF-D/VGGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 69; DB 9; Length 17;
Pred. No. 4.3e-05;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 69; DB 9; Length 17; Pred. No. 4.3e-05; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 31, Application US/09761636A Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                         95.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95.8%;
                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: synthetic construct
US-09-761-636A-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CATELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 95.8
Best Local Similarity 92.3
Matches 12, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 92.3
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                        US-09-761-636A-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-761-636A-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
US-09-761-636A-16
          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                  APPLICANT: ACHEN, Marc
APPLICANT: ACHENS, Marc
APPLICANT: STACKEN, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-OVEGF PEPTIDOMIMETIC INHIBITOR
TITLE OF INVENTION: VEGF-DVEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
CURRENT ELLE OF INVENTION: VEGF-DVEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
CURRENT FILLE OF INVENTION: VEGF-DVEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
CURRENT FILLING DATE: 2010-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PILLING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PILLING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VERSION 3.0
SEQ ID NO 8
LENGTH: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 15, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION

APPLICANT: ACHEN, Marc

APPLICANT: ACHEN, Marc

APPLICANT: STACKER, Steven

APPLICANT: ENGRENS Richard

APPLICANT: ENGRENS Richard

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US/09/761,636A

CURRENT PILING DATE: 2000-01-18

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR PILING DATE: 2000-01-18

PRIOR PLING DATE: 2000-05-16

NUMBER OF SEQ ID NOS: 34

SOFTWARE: PatentIn version 3.0

SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
100.0%; Score 72; DB 9; Length 17;
Best Local Similarity 100.0%; Pred. No. 1.3e-05;
Matches 13; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 69; DB 9; Length 13;
Pred. No. 3.3e-05;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 27, Application US/09761636A
Patent No. US20020065218A1
GENERAL INFORMATION:
APPLICANT: ACHEW Marc
Sequence 8, Application US/09761636A Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 92.3%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-09-761-636A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-761-636A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-09-761-636A-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-761-636A-8
```

ઠે 셤 ö

ò g

ö

ö

ઠે 셤

```
Gaps
                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 30, Application US/09761636A
Sequence 30, Application US/09761636A
Sequence 30, Application US/09761636A
Setent No. US20020065218A1
GENERAL INFORMATION:
APPLICANT: ACHEN, Machard
APPLICANT: HUGHES, Richard
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VECF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2000-01-18
PRIOR PAPLICATION NUMBER: US 60/176,293
PRIOR PAPLICATION NUMBER: US 60/204,590
PRIOR FILING DATE: 2000-65-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PatentIn version 3.0
SEQ ID NO 30
LENGTH: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: GENDROW, Angela
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPERBENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR PILING DATE: 2000-01-18
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VETSION 3.0
SEQ ID NOS: 34
SEQ ID NOS: 34
SEQ ID NOS: 34
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 17;
                                                                                                                                                                                  Length 17;
                                                                                                                                                                                Score 65; DB 9; Length 17;
Pred. No. 0.00022;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 65; DB 9; Length 17;
Pred. No. 0.00022;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-761-636A-32
; Sequence 32, Application US/09761636A
; Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
    NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.0
SEQ ID NO 28
LENGTH: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90.3%;
84.6%;
                                                                                          ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-28
                                                                                                                                                                                  Query Match
Best Local Similarity 84.6%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT ORGANISM: synthetic construct
                                                                                                                                                                                                                                                                        1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                  1 CASELGKTSNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CASELGRSTNSFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity (
.....hes 11; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-30
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7

US-09-761-636A-18

Sequence 18, Application US/09761636A

Patent No. US20202065218A1

GAPPLICANT: ACHEN, Marc

APPLICANT: ATCHEN, Marc

APPLICANT: HUGHES, Richard

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REFERENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US 60/176, 636A

CURRENT FILING DATE: 2001-01-18

PRIOR APPLICATION NUMBER: US 60/176, 293

PRIOR APPLICATION NUMBER: US 60/204, 590

PRIOR FILING DATE: 2000-01-18

NUMBER OF SEQ ID NOS: 34

SEQ ID NO 18

SEQ ID NO 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 28, Application US/09761636A
; Sequence 28, Application US/09761636A
; Patent No. US20020065218A1
; GENERAL INFORMATION:
; APPLICANT: ACHEN, Marc
; APPLICANT: STACKER, Steven
; APPLICANT: CENDRON, Angela
; TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
; FILE REFERENCE: 1064/46505 Achen et al
; CURRENT APPLICATION NUMBER: US/09/761,636A
; PRIOR APPLICATION NUMBER: US 60/176,293
; PRIOR PILING DATE: 2000-01-18
; PRIOR PLILNG DATE: 2000-05-16
                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                           Score 65; DB 9; Lengtn 13; Pred. No. 0.00016; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90.3%; Score 65; DB 9; Length 13; 84.6%; Pred. No. 0.00016; Live 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                            2; Mismatches
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-18
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN Version 3.0
                                                                                                                                                                                                                                                                                             90.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: synthetic construct US-09-761-636A-18
                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: synthetic construct
US-09-761-636A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 84.0
Local Similarity 84.0
Local Similarity
Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                        1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASELGRSTNSFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                               1 CASELGKTSNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-09-761-636A-28
                                                                                                                                                           SEQ ID NO 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
```

δ 셤

ö

ö

Gaps

셤

```
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT APPLICATION UNDER: US 60/176,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION UNDER: US 60/176,293
PRIOR PAPLICATION UNDER: US 60/204,590
PRIOR FILING DATE: 2000-01-18
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VETSION 3.0
SEQ ID NO 3
LENGTH: 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: ACHEN, Marc
APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REFERENCE: 1064/48505 Achen et al
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR APPLICATION NUMBER: US 60/204,590
PRIOR PLING DATE: 2000-01-18
PRIOR PLING DATE: 2000-05-16
PRIOR PLING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
SPRIOR FILING DATE: 2000-05-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE: NAME/KEY: misc_feature OTHER INFORMATION: Amino acid residues of VallO1-Pro196 of VEGF-D
                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc feature; OTHER INFORMATION: Amino acid residues Val101-Thr173 of VEGF-D US-09-761-636A-3
                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75.0%; Score 54; DB 9; Length 73;
100.0%; Pred. No. 0.081;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75.0%; Score 54; DB 9; Length 96;
                 ö
              3; Mismatches
                                                                                                                                                                                                                                                            Sequence 3, Application US/09761636A Patent No. US20020065218A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/09761636A Patent No. US20020065218A1
                                                               1 CASELGKSTNTFC 13
                                                                                            1 CASDVGKSTNTWC 13
           10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 ASELGKSTNTF 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 11; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION
                                                                                                                                                                                                                               -09-761-636A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-761-636A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-761-636A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
                                                                     ò
                                                                                                                    g
                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ACHEN, Marc
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: STACKER, Steven
APPLICANT: CENDRON, Angela
TITLE OF INVENTION: VEGF-D/VEGF PEPTIDOMIMETIC INHIBITOR
FILE REPERENCE: 1064/48505 Achen et al
CURRENT APPLICATION NUMBER: US/09/761,636A
CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: US 60/176,293
PRIOR FILING DATE: 2000-01-16
PRIOR FILING DATE: 2000-05-16
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN VERSION 3.0
SEQ ID NO 17
LENGTH: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 29, Application US/09761636A

Sequence 29, Application US/09761636A

Patent No. US20020065218A1

GENERAL INFORMATION:

APPLICANT: ACHEN, Marc

APPLICANT: BTACKER, Steven

APPLICANT: CENDRON, Angela

TITLE OF INVENTION: VEGF-D/VEGF-C/VEGF PEPTIDOMIMETIC INHIBITOR

FILE REFRENCE: 1064/48505 Achen et al

CURRENT APPLICATION NUMBER: US 60/1761,636A

PRIOR APPLICATION NUMBER: US 60/176,293

PRIOR RILING DATE: 2000-01-18

PRIOR PILING DATE: 2000-01-18

PRIOR PILING DATE: 2000-01-18

PRIOR PILING DATE: 2000-05-16

NUMBER OF SEQ ID NOS: 34

SOFTWARE: PatentIn version 3.0
                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                 Score 65; DB 9; Length 17;
Pred. No. 0.00022;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 61; DB 9; Length 17; Pred. No. 0.0011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 61; DB 9; Length 13;
Pred. No. 0.00083;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 17, Application US/09761636A
Patent No. US20020065218A1
; ORGANISM: synthetic construct US-09-761-636A-32

    TYPE: PRT
    ORGANISM: synthetic construct
US-09-761-636A-17

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84.78;
76.98;
                                                                              Query Match 90.3%;
Best Local Similarity 84.6%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 76.9%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: synthetic construct
US-09-761-636A-29
                                                                                                                                                                                                                               1 CASELGRSTNSFC 13
                                                                                                                                                                                               1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CASELGKSTNTFC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CASDVGKSTNTWC 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                  RESULT 11
US-09-761-636A-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-761-636A-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
```

ò ద

ö

Gaps

```
RESULT 15
US-09-956-095-3
; Sequence 3, Application US/09956095
; Fatent No. US20020102260A1
; GENERAL INFORMATION:
; APPLICANT: ACHEN, MARC 6
; APPLICANT: ACHEN, MARC 6
; TITLE OF INVENTION: WETHODS FOR TREATING NEOPLASTIC DISEASE CHARACTERIZED BY
; TITLE OF INVENTION: WASCULAR ENDOTHELIAL GROWTH FACTOR D EXPRESSION, FOR SCREENING
; TITLE OF INVENTION: VASCULAR ZATION OF TISSUE
; TITLE OF INVENTION: VASCULAR ZATION OF TISSUE
; TITLE OF INVENTION: VASCULAR ZATION OF TISSUE
; TITLE OF INVENTION: VASCULAR ZATION OF TISSUE
; FILE REPERENCE: 1064/48666PC
; CURRENT APPLICATION NUMBER: US/09/956,095
; CURRENT PILING DATE: 2001-09-20
; PRIOR FILING DATE: 2000-09-20
; PRIOR FILING DATE: 2000-09-20
; NUMBER OF SEQ ID NOS: 4
; SEQ ID NO 3
; LEMCTH: 109
; TYPE: PRT
; ORCANISM: Homo sapiens
US-09-956-095-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                             0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 75.0%; Score 54; DB 9; Length 109; Best Local Similarity 100.0%; Pred. No. 0.12; Matches 11; Conservative 0; Mismatches 0; Indels
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 11; Conservative 0; Mismatches 0; Indels
                                                                     2 ASELGKSTNTF 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 ASELGKSTNTF 12
                                                                                             21 ASELGKSTNTF 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29 ASELGKSTNTF 39
                                                                                                          q
                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

Search completed: April 1, 2005, 10:36:33 Job time : 319.479 secs

THIS PAGE BLANK (USPTO)